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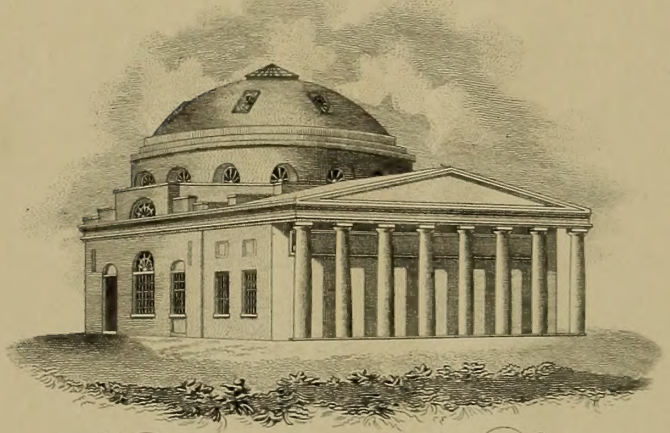

University of Maryland

University of Maryland Theses

Early Doctor of Medicine and Doctor of Physic Dissertations with Corrected Tables of Contents

These manuscripts described as either an Inaugural Dissertation or an Inaugural Essay were presented to the University of Maryland for the Degree of Doctor of Medicine and/or Doctor of Physic during the years 1813-1887. The individual dissertations were bound together during the 1940's. The original tables of contents for the bound volumes contained multiple errors in authors' names, titles, and/or years. To address these errors, an additional "Corrected Table of Contents" has been inserted at the beginning of each volume.

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UNIVERSITY OF MARYLAND

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1878 (b)

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UNIVERSITY OF MARYLAND

THESES

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Norris, R. R. (Robert)	Acute Articular Rheumatism (stained)	19p.
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Norris, R. M. (Rhesa)	Pneumonia	13p.
Brown, John J.	Typhoid Fever	51p.
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Bateler, W. C.	Science and the Successful Physician (not in card 11)	48p.
Bales, C. J.	Digestion	17p.
Towles, LeRoy C.	Chorea	23p.
Thomas, F. S. (Frederick)	Typhoid Fever	16p.
Dallam, E. P. (Edward)	The Eye	21p.
Lewis, R. W. (Francis)	Indigestion	37p.
Keller, F. P. (Franklin)	Diagnosis (partially faded)	14p.
Mowers, J. H. (Joseph)	Pneumonia	27p.
Love, J. W. (James W.)	Typhoid Fever	21p.
Barnum, Zenus	Urine	13p.

A Thesis

On

Acute Articular Rheumatism

by

R. R. Harris. of.

Maryland.

Session 1877.78.

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WMb
16979

Acute Articular Rheumatism.

Acute Articular Rheumatism is a non suppurative inflammation of the Fibrous Tissues surrounding the Articulations or joints; but by what is usually called. Metastasis may involve other Tissues as within and around the heart for which it shows a special tendency.

The inflammation in those parts differ from that of the joints, and it is more convenient to consider them in light of complications

Hence I will consider the disease as it occurs.

in the articulations and then speak of its complications.

Acute Articular Rheumatism in a majority of the cases comes on suddenly and without any prodromic symptoms. In a few cases there is a slight febrile movement preceeds the local manifestations of the disease. The development of the disease is noted by an affection of one or more of the joints. The local phenomina are pain, tenderness, increased heat, swelling and redness of the skin.

The pain differs in intensity owing to the severity of the attack but as a rule is not so severe as long as the parts are at rest. consequently the patient becomes fixed in one position from which he is afraid to stir. In severe cases the slightest motion is insupportable even jarring the Bed or Room occasions suffering. Swelling is most apparent in joints not covered with muscle. The swelling is due to a morbid increase of Liquid within the Synovial Cavity and effusion into the sur

surrounding structures - The redness is only apparent over joints comparatively superficial The swelling and redness are in general proportionate to the acuteness of the attack. In some cases several joints are affected at the same time, or in quick succession In other cases the disease is limited to a single joint for a greater or less period. It is a peculiarity of this affection to leave one or more joints abruptly, the local phenomena disappearing in a few hours, and to attack

as abruptly other joints
Acute Articular Rheumatism
is very irregular in regard
to the number of joints
effected. In some cases in
the course of the disease few
or no joints escape, and in
others the inflammations is
limited to a few joints or
to a single joint. This disease
is always accompanied with
more or less fever, and is
sometimes called Rheumatic
fever. The intensity of the
fever is not always proportionate to the number of joints
effected, or the intensity of the

Rheumatic inflammation as
denoted by pain soreness
heat &c- The pulse rarely
exceed 90 beats per minut
Temperature ranges from 101°
to 110° Fahr.
Sweating is a symptom more
or less prominent, generaly
occurring at night- emitting
a sour oder, In connection
with more or less sudamina
or vesicles, which frequently
occur on the Neck & Trunk.
This sweating is remarkable
for its exhausting effect on
the patient without allevia
ting his suffering

occurs which is rare. A mild delirium is sometimes observed, wakefulness is a source of great discomfort caused by pain on the change of position and the profuse prespirations. Acute Articular Rheumatism shows a special tendency to attack certain structures of the heart. The Endocardium more frequently, the inflammation seems to have a preference to the membrane lining the left side or cavities of the heart especially the portion entering into the composition of the Mitral Valve.

Rheumatic Endocarditis in a large proportion of cases is the cause of valvular lesions of the heart especially Mitral.
The inflamation in the Tissues of the heart exhibits a peculiarity which does not present itself when located in the joints. as a rule, the ordinary results of inflammation are observed viz- Exudation of Lymph formation of false membrane and sometimes suppuration. The structures of the heart may become involved at any period in the course of the disease; but the liability is

greatest in the early stage of the inflammation. Bronchitis, Pleuritis and Pneumonia are sometimes developed, but these are supposed to be accidental complications. The meninges of the Brain may be effected, examples are rare. Delerium Coma and convulsions have been observed in a small number of cases. Acute Articular Rheumatism is a self limited disease but the minimum and maximum of this disease is wide apart when left to itself without any medicinal treatment.

There is a great deal to be learned yet, in regard to the continuance, the complications and the remote consequences in the organism effected by Articular Rheumatism.
The true Pathology is as yet unknown. this disease has been closely observed by Pathologist, and it is now generally conceded by them that there is a Materias morbi existing in the blood which gives rise to the disease, the nature of which is not agreed upon by all Pathologists. The morbid principle is now believed to be Lactic acid,

and it is generally accepted to be a rational basis of treatment. This principle is what may circulating with the blood, acts upon certain tissues and gives rise to local manifestations of the disease.
Rheumatism is supposed to be frequently caused by suppression of the functions of the skin, and especially the action of cold upon the body. A special predisposition seems to be requisite for the causation of this disease.
This may be congenital and inherited, or it may be acquired

age appears to have a marked influence over its causation, may occur at any period of life, but usually between 10 and 35 years of age.

The susceptability of the male to this disease seems to predominate, but the difference is not very marked.

The Diagnosis is generally easy. It is to be discriminated from Gout and Rheumatic Gout.

The diagnostic features are generally so well marked that the disease is very readily recognised. It may locate itself in a single joint, when thus

may be confounded with Synovitis, or simple acute Arthritis. Some cases of Pyemia in which a purulent effusion into certain joints has been mistaken for Rheumatism.

The disease very seldom if ever proves fatal within itself. When death occur it is due to complications such as Pericarditis, and Pulmonary affections. Endocarditis which is liable to occur often produces valvular lesions of the heart which in after years may occasion serious inconvenience

Treatment. I will not attempt to give an account of the various modes of Treatment which has been practiced during the last 25 years but will confine myself to the modern views on the subject. The Alkaline Treat. is now generally adopted by the Profession The rational mode of treatment would be to arrest the production of the Materias morbi contained in the blood. There are no known means of accomplishing this end - next to this, to neutralize and eliminate

the morbid principle from the blood are the effects of treatment.

Assuming the principle to be Lactic Acid, it is neutralized by the introduction of Alkalies and an effect of the treatment is an increase of Urine. The Alkali selected should be given in full doses and frequently until the Urine gives an Alkaline reaction. In order to secure its protective agency against Cardiac affections. Of the Alkalies the Bicarbonate of Potassa or Soda are the most reliable.

as soon as the Urine becomes Alkaline the remedy should be diminished in frequency & quantity.

This mode of treatment does not interfere with other Therapeutical measures which are called for to meet the indications in individual cases—

Bleeding is very seldom, if ever advisable, may be employed under some circumstances when the fever is intense, and the patient Plethoric.

Tr of Aconite is good as an Arterial Sedative & Antipyretic.

Full doses of Quinine if well borne

are useful continued purging is never indicated - Opiates should be given according to the amount of pain, restlessness and vigilance, especially at night.

Salicylic Acid has recently been tried in Acute Rheumatism with very satisfactory results which is probably due to its Antipyretic effects Tonics, and especially the preparations of Cinchonidia are useful. Wine or Spirits are sometimes of marked benefit in small quantities.

The affected joints should be

treated locally with some Anodyne liniment – Chloroform and Aconite is very good – The joints may be enveloped in cotton or flannel Methodic friction sometimes affords marked relief –

[illegible]

[illegible] that [illegible] careful [illegible]" than this variety of displacement of the [illegible]. It is full of interest" and if we wish to become familiar with it Pathology, Diagnosis, Treatment, &c." it requires close inspection and demands care" [illegible] and [illegible]. We learn that the ancients were enlightened to some extent upon this subject." But it seems [illegible] displacements [illegible] occurred during Extra Gestation. They were aware that displacements occurred [illegible] classification [illegible] varieties. [illegible] must say that they knew [illegible] of [illegible] distinct from [illegible]. [illegible] not until 1800. that the differential diagnosis [illegible] established between [illegible] and

and Flexions." Ameline was first to [illegible] the wanting link: "that of an anterior variety in 1827." But as Mr Thomas States in his book — [illegible] of Women: "These [illegible] of the eminent Services of Simpson" who introduced the way to [illegible] by introducing the [illegible].

Anteflexion Signifies a bending of the [illegible] so that the fundus "the [illegible]" or both are bent more or less sharply forwards.

There are three forms of Anteflexion First Corporal flexion. Second Cervical flexion. Third Cervico corporal flexion.

Corporal flexion is when the [illegible] in its normal position and the body is flexed.

Cervical flexion exists when the [illegible]

[illegible] of the [illegible]
[illegible] bad" or modesty which [illegible]
[illegible]" prevents them from ascertaining the
the condition. [illegible] from [illegible] obser-
-vation [illegible] women are allowed to suffer
by the [illegible] neglecting to do her
duty. It appears to be either negligence or
inefficiency or probably both. In the country
I know from self experience that thousands
of women suffer on this account and live
[illegible] life of misery. Many women who
have have suffered for years have applied
to some more proficient and have by proper
measures been rendered comparatively well.

Signs by digital touch.

Patient being placed upon the back and
the left hand with the under finger [illegible]

the finger is then passed into the vagina and is allowed to sweep over the anterior wall until a protuberance will be felt. [illegible] the [illegible] pressing upon the bladder the hand should be kept upon this mass until the other hand is over the abdomen and then be pressed so that the finger may be brought in approximation to the [illegible] wall. By this procedure we learn the condition of the organ as regards sensitiveness size & shape. The physician may then differentiate between tumors or cellulitis by introducing Prof. [illegible] Howard. Be [illegible] speculum and then introducing [illegible] uterine sound.

If the instrument meets obstruction he

will [illegible] the [illegible] [illegible] it
a different curve. He should before using
the "probe" ascertain as far as possible
the curve of the instrument which is but
needed. By thus [illegible] the "probe"
we learn the length & "consistiveness" &c.
The probe may have entered the mass
which was felt in the vagina" then we
may readily conclude it is the Uterine
body. But if it enter in the normal
axis or backwards it is not the Uterine
body" but some [illegible] adherent to the
walls of the organ. ——— Prognosis
The prognosis depends altogether with
whom you have to deal: If Multiparous"
it is far better than if "nulliparous" for
this reason. In the Multiparous we can

Causes

Like the [illegible] [illegible] [illegible] [illegible]
I shall [illegible] [illegible] [illegible] [illegible] [illegible]
Predisposing" & Exciting. I will first [illegible]
the Predisposing causes.

If from any cause
women [illegible] [illegible] in health the
tonicity of the [illegible] walls will of course
[illegible] [illegible] [illegible] [illegible] [illegible]
exciting cause it [illegible] the way to
displacement of the [illegible] "the most [illegible]
[illegible] of the Predisposing causes" are"
Parturition: "Impoverishment of the blood"
enfeebled nervous State" Extreme youth" or
[illegible] Laborious occupations" [illegible]
of the abdominal walls" And influence
altering the [illegible] [illegible] [illegible] [illegible]
of [illegible] of the [illegible] [illegible] [illegible]

Treatment

[illegible] the varieties" and the different modes of treatment. First of the reducible variety.

We should first examine our patient and learn the condition" if of a simple form and short duration a Pessary may be introduced of suitable form" but should always remember" that Flexures are much more tardy in their nature than Versions" and it would be wrong to act hastily upon all occasions." If by an act we should attempt to replace the organ to its normal position we might unfortunately set up endometritis which might prove disastrous to our patient and our own reputation" and as Flexures are nearly always the results of influences [illegible]

[illegible] that they may
[illegible] if our treatment is
not persisted in and adhered to strictly.
Our first object should be to lessen the
irritability of the organ by using some
soothing injection for a few days and
rest should be enforced. After the patient
is in condition to commence upon
Then the patient lying upon back and
Prof. Howard's Speculum introduced
then the sound should be introduced
it should be made to go as straight
as possible the handle being elevated
to the Symphysis pulled by this mani-
pulation the organ is brought in position
of retroflexion this being partial and
the organ is completely anteverted,

our Patient again remove the Pessary which should have been an Anteversion Pessary. The anteflexion pessary of Dr Thomas is a very efficient one" but has its disadvantages it being seldom resorted to only by experts. It is exceedingly difficult to remove not only by the Patient but by the Physician" after making a second examination we should replace the Pessary and reapply our obstetrical bandage we should if we find improvement to a marked degree employ and abdominal Support and as far as practicable go around and attend to duties if they be of the nature where no lifting or straining is required as feel assured that one should

is the hazardous without any assignable
causes. Some have found it destroy sensibility
in the organ. Before we use such pessaries
it is our duty to ascertain the condition
of the organ. See if any inflammation exist
in the Uterus

Dr. Thomas's instrument answers the
condition well that is the one he uses for
[illegible]. It can be withdrawn easily
as the pessary fits [illegible] and the
stem has a string passed through the
end which hangs from the Vulva.
The patient should not wear one if it
gives rise to pain. They should be withdrawn
at each menstrual epoch" and in their

introduction care should be taken to warn your patient against exercise she should remain absolutely quiet in bed" and if on occurrence of discomfort pain chilliness &c she should remove it. This measure will in most instances accomplish good or evil large majority of cases good will result.

On speaking of the third variety I think it will be proper to consider to some extent the pathology as it is merely exemplified in this form, if from any cause the [illegible] of the organ is destroyed" whether from structural disease as first described by Lagrange and insisted upon afterwards by Bennett or Perrutton" or influences altering the uterine axis for instance tumors of various kinds.

being attached to its walls' dragging upon them or from laborious occupations" the organ being in this state it is likely to cause a curve in the axis of the organ" moreover if the uterus loses its tone pressure upon it by tight dressing and constipation is apt to cause it to incline forwards Mr Thomas speaks of walls of one side of the uterus growing faster than the other" by excessive nutrition nutrition and the other interfered with's gives to the interfered side a concavity" and if one wall develops more decidedly than the other a displacement is more liable to occur on the concave side" than the enlarged one. Thus if the anterior wall receive an excess of nutrition we are apt to have ~~anteflexion~~ "reverse likewise on the other hand

Retrocession

This would be congenital [illegible] and would give rise to Symptoms as soon as the [illegible] [illegible] if this occur [illegible] [illegible] [illegible] in the first place" the obstruction would prevent egress of the menstrual flow and of course would form clots and are expelled at each epoch" with tenesmus which gives rise to Dysmenorrhoea" and causes Sterility [illegible] [illegible] [illegible] [illegible]. Areolar hyperplasia is a not infrequent result" resulting from congestion of the mucous membrane which causes it to increase the weight of the organ and thus affords progress to its further advancement and thus give rise to retrograde ovarian irritation (says Dr Barnes), This form is most certainly incurable unless we resort to the "Kife" and at

procedure of this kind so often attended with deleterious results we must remember that [illegible] an so vascular as the uterus should not be tampered with by the inexperienced physician nor should they who are skillful regard it as simple and unattended with danger. The operation is simple indeed but often results in some form of inflammation such as Peritonitis or Pelvic Cellulitis which if ~~does~~ do not prove fatal, may give rise to distressing and [illegible] of sickness But this is the only means we can resort to for cure or permanent relief therefore we should not abandon an operation which if disasterous is practiced by the most enlightened [illegible] of the day. The operation consists in [illegible] a section of one or

[illegible] of the cervix" overcoming the
constriction" we then remove the mechanical
irritation" and remove the tendency to congestion
of the body of the [illegible] Mode of [illegible]
[illegible] anesthetized" and placed in [illegible]
Speculum is introduced" the Cervix is seized
by a Tenaculum firmly" the double Scissors
is made to cut off a small strip of tissue
one quarter of an inch wide extending from
the os externum to the vaginal junction
[illegible] a small strip by the [illegible]
instrument out of the upper part of the
incision as this instrument [illegible]
cut enough superiorly" Then Sims knife
carried up and the extremities of the tissue
cut so as to make the canal straight
and unobstructed. Mr Thomas has devised

his method. He objects to Dr Sims method
on the grounds that the wound often heals
after [illegible] under the care of the
operator." After treatment
After the [illegible] a roll
of cotton Iron is introduced "an made
fill the cervix" from os internum to Os
externum then a tampon of wet cotton
should be placed under this we should
then remove in course of 24, or 36, hours
though the Iron cotton should remain
[illegible] four days as not to let the canal
become agglutinated it should be removed
after this period has elapsed" and then
again replaced" by the means we insure
perviousness of the canals" we should build
up the general health by Tonics and of

advisable in a month or 6 weeks introduced
the intra uterine Stem pessary. This Concludes
my epistle on Deflexion of the Uterus. I am
pleased to Say since my Stay in Omorrsity,
[illegible] the Modification of Seeing
some Typical cases of this disease" and
[illegible] the Chair of
Gynecology too in his precise & unerring
manner to realize the importance of understanding
[illegible] pathology treatment and results and
shall allow the honorable gentlemen of the
Faculty to judge of my ability from this
[illegible]

An
Inaugural Dissertation on
"Cholera Infantum,"
Most Respectfully submitted
to the
Trustees, Regents and Faculty
of Physic of the University
of Maryland.

By

Wm. J. Floyd.

(Chest Point, Georgia)
1878

To

William T. Howard M. D.

Professor of the Diseases of Women and Children and Clinical Medicine in the University of Md., for my high esteem of his peerless position as an instructor of medicine, for his sacred, progressing and ardent devotion to his exalted department of the science of Physic and for his high culture, genial and gentlemanly bearing to all his exceedingly appreciative students, this Essay is most respectfully inscribed, by one of his many grateful and humble students,

the Author.

In compliance with a time-honored custom and requisition of this old and beloved institution, this Thesis has been composed and submitted. In the writing of which the standard works of Hinds, Cudie West and J. Lewis Smith have been carefully perused; also very close attention has been given to the lectures of Prof's. Hew and McSherry and S. C. Chew. All things being considered, as regards the almost innumerable number of subjects, my time and ability to write, and the most dreaded maladies of the section of country in which I hope to practice, no subject appeared to be of more absolute

Cholera Infantum.

Is a Summer Complaint, peculiar to America and Eastern countries, but to no race, and occurring mostly during July and August, in infants under two years of age. With exceptional cases it is a disease of cities.

Some have so extended the term as to embrace a large part of the diarrhoeal maladies affecting infants in the Summer months. Some physicians apply it even to mild but protracted cases of ordinary non-inflammatory or inflammatory diarrhoea

occurring in this season.
But Prof. Wm. T. Howard, of
the University of Md., as good
an authority as is in this or any
other country, very properly em-
ploys it, as it should, in my opin-
ion, only be employed, to disig-
nate that form of infantile
diarrhoea in which there are
frequent watery stools, accom-
panied by Vomiting, great
elevation of temperature, and
rapid and great emaciation.

Causes.— As above stated,
cholera infantum prevails
mainly in hot cities, occurring

from the month of May to October, corresponding in maximum severity and frequency with the degree of heat. When the temperature suddenly rises from 60° to 95° F., the disease is very likely to set in, at once, in its favored localities. But something more than temperature is concerned in its production. One chief cause doubtless, is habitation in localities with an atmosphere burdened with obnoxious vapors, especially those from vegetable and animal decay, or an atmosphere made impure by the too great abundance

of the inhabitants and by their own personal and domiciliary filthiness. Therefore, it is but common sense to conclude that cholera infantum is much more common near sewers, large uncleaned privies, in tenement houses, the smutty huts of the rural districts and parts of cities occupied by the poor, than in neater and less crowded streets and apartments. And this potent cause besides the elevation of temperature and insalubrious situations, co-operates

and probably in the majority of cases, namely, the use of improper food. Hence, with the greatest accuracy we say that, the depressing influences of atmospheric heat and unhealthy localities are the predisposing causes, while the use of improper food is the exciting cause. Those infants upon whom both causes are operative are certainly most subject to this malady, one of the most dangerous and dreaded diseases of our climate.

Bottle-fed infants in the city.

are especially liable to it, and those who subsist on food improperly and carelessly prepared. Acid and vegetable fruits, as currents, cranberries, unripe plums, cherries, etc., carelessly given to children, often develop the attack during the Summer months. Though remarkable, it is a noticeable fact that, male infants are more frequently attacked than female infants. No cause has been assigned for this fact. Some infants have a hereditary pre-disposition to the disease. It occurs so frequently during

the first dental period that some have regarded dentition as a cause. But at this age the intestinal follicles are undergoing great functional activity and rapid development, and the singular liability to the disease at this age is rather attributable to this cause than to dentition.

Symptoms.- Although health previously good, cholera infantum sometimes sets in abruptly. Is frequently preceded by a premonitory stage of diarrhoea. Then the stools are thinner than normal

somewhat more frequent,
but not alarming. The vac-
uations suddenly become
more constant and watery,
the parents are seized with
dread and fright because
of the rapid sinking and
obviously perilous condition
of the infant. It is not
unknown for this condition
of antecedent diarrhoea to
have continued several
weeks, attended with emacia-
tion and associated with
intestinal inflammation.
This disease is noted by the dis-
charges of thin stools, specified

by some watery, by others serous. Diarrhoea not previously existing, the first evacuations contain considerable faecal matter. Because of their thinness they often soak into the diaper, running over the nurse's lap or the bed and scarcely producing more stain than normal urine. Here the peculiar odor is musty and offensive, but not faecal. These serous evacuations often contain floating greenish flocculi, or shreds long and worm like. Sometimes colorless, varied much in frequency

and often running to thirty in twenty-four hours. The greenish appearance generally found in the stools may be produced in one of three ways, viz: By the action of the acids of the alimentary canal upon the bile, or by the action of the bile upon the blood exuded in the alimentary canal, or lastly, by the action of the atmosphere and urine upon the evacuations after standing for several hours in the chamber.

Occurring simultaneously with these serous evacuations, or

soon after, is another symptom, namely, irritability of the stomach, which increases greatly the prostration and danger. But — there is no true gastritis. Vomiting soon comes on. Whatever is swallowed is rejected immediately, or after a few minutes, or — vomiting may not accompany the retching. Appetite soon fails and there is <u>intense</u> thirst.

If nursing, the infant seizes the breast to relieve the thirst; and especially, is cold water taken with extreme eagerness. The ejecta is first simply water and food, then serous gummy fluid, and finally of greenish color. At the early stage the tongue is

is moist and clean or covered with a light fur. Then it becomes dry and pasty. Respiration, usually normal, may be a little hurried, but the pulse is accelerated. The surface is warm, but its temperature is speedily reduced, while the skin is soft and without tonicity. There is probably no disease, except Scarlet Fever, in which the temperature of the blood runs so very high. The thermometer in rectum often rises above 105° and even 107½° is reported. Pulse runs even to 150.

There is no abdominal tenderness and no evidence of pain.

Infant is often restless at first, owing to its thirst, or the unpleas-

ant sensations which the sick only experience when the powers of life are rapidly failing. The scantiness of the urine which is even suppressed in extreme cases, marks the gravity of the attack. Excluding Asiatic Cholera, and the most severe form of cholera morbus, the loss of strength and the emaciation are more rapid than in any other diarrhoeal malady. So marked, death like and positive are the changes that, the attendants scarcely recognize in the gloomy aspect of the infant any resemblance to the features which it exhibited a day or two before. With dejected and haggard countenance it withers in the jaws of death.

The eyes are sunken and blue beneath the lids, and the lips hang open, while the bony angles are quite prominent, the abdomen sunken, the skin, having lost its tone, is soft - and in places lies in folds. As the fatal termination rapidly approaches, the infant remains quiet, flies alighting on its face not even disturbing it. Cool limbs and cheeks; the eyes bleared and pupils contracted; the urine becomes scanty or suppressed. There is marked acceleration of the respiration as death draws near; the pulse becomes more and more feeble, with clammy coldness of surface; stupor

follows, becoming more & more profound, and from which, the dying infant can not be aroused.
If the disease is aborted in the most favorable cases, of course, these fatal symptoms do not occur. The malady does not always terminate so speedily even though it may be ultimately fatal.

Anatomy.- The intestinal follicles are abnormally developed. The mucus membrane of the intestines is vascular in patches and streaks and somewhat thickened and softened. The soli-

cary glands and patches of Peyer present an inflammatory hyperaemia, and occasionally certain of them are ulcerated. There is no special lesions of the brain or of its membranes. The cranial sinuses, veins and capillaries of the brain are congested and there is transudation of serum upon the surface of the brain or in the Ventricles.

The liver preserves its integrity of normal function through the whole course of the disease - I.E. there is no perverted secretion of this gland, nor is it involved. The lungs remain healthy except they may take on hypostatic congestion.

Nature.- It is now a conceded fact that, cholera infantum is the most virulent inflammation to which infants are liable in our climate. especially when it is fully developed and enters its advanced stages. It is stated upon good authority that: "There is no other infantile malady in which there is uniformly so high a temperature, and under which patients sink more rapidly." The alvine discharges cause the rapid prostration and they consist, probably, in part, of the secretions from the intestinal tract and of the serum which has transuded from the capillaries of the alimentary canal.

Some writers have considered

thermic fever and cholera infantum identical and have also confounded the latter with Asiatic cholera; but the differential diagnosis between sunstroke and cholera infantum is very distinct, while all admit the perplexing diagnosis between Asiatic cholera & cholera infantum.

Between Sunstroke and cholera infantum there is most assuredly a resemblance as regards certain important symptoms. In both, the fever is very high, often observed to be 108°. Towards the termination of cholera infantum we find thin faecal evacuations, scanty urine, embarrassed respiration, contracted pupils, great-

heat of the head and cerebral symptoms are common, and certainly, these are the prominent symptoms in sunstroke. But gastro-intestinal symptoms are the most prominent in cholera infantum. Nor does cholera infantum come on with a sudden stroke as does coup de soleil, but it comes on more gradual, though rapidly, while it frequently follows diarrhoea or some error of diet.

The infant is not drowsy but restless from thirst; while in sunstroke the stupor is excessive & alarming; also, it occurs only during the hours of exceeding heat, while cholera infantum may occur at any hour, or day in hot weather, if there

is existing a sufficient diluting cause. Again, intestinal inflammation is rare in sunstroke, while it is the common and essential symptom in Cholera infantum. These differential facts are, without doubt, sufficient to place the non-identity of the two diseases beyond question.

In Asiatic Cholera we have the "Rice Water" stools and these are not present in Cholera infantum.

No uniform lesions are observed in any of the viscera, unless it be the organs of digestion; and such is found, I presume, to be due to changes in the quantity and fluidity of the blood,

and in its circulation.
As the urine becomes scanty or
suppressed, uraemia sets up and
cerebral symptoms usually
follow.
Diagnosis.- The symptoms
are diagnostic and especially
the character and frequency of the
stools. As above stated, the stools are
frequent, very often passed with
considerable force- they are
generally deficient in faecal mat-
ter, are thin, so as even to soak through
the napkin as would urine. These
symptoms, with thirst, vomiting
rapid sinking and extreme ema-
ciation serve to differentially
diagnose cholera infantum from

other diarrhoeal maladies. In fact the diagnosis is perfectly easy and uncomplicated unless Asiatic Cholera be present. Then the differential diagnosis is difficult if not impossible.

Prognosis.- A favorable prognosis should never be given without qualification. Neglecting this precaution, many physicians have injured their reputations by prognosticating too hastily and carelessly, and very often, painfully observe their favorable prognosis soon followed by sudden death. The disease is never free from danger. It is much prone to collapse, which soon sets in and winds up the hasty, sad scene.

The prognosis depends upon early and proper treatment. If the child has been weaned early, subsisting on poor food, impure air, receiving poor nourishment and insufficient and careless attention the prognosis is very grave and unfavorable.
Many children survive the attack, but a few large liquid stools at once, is an inauspicious omen. Though the urgent symptoms may be relieved, an ordinary intestinal inflammation may follow, which, in hot-weather, is formidable and often fatal. The physician may confidently express the opinion that there is no present danger, when the stools become more consistent and less frequent, without the

occurrence of cerebral symptoms, while the limbs are warm and pulse still good. True cholera infantum is of short duration. It either ends fatally, or it begins soon to abate and ceases, or it continues as an entero-colitis. Collapse may result in death in twenty-four or forty-eight hours from the frequent stools, or not till after three or four days. The duration is various, generally very short.

Prof. Wm. T. Howard cites his cases:- The first he saw in June 1872- child aged eighteen months- Died in eleven hours from time taken.- The second case he saw in June 1873- child age ten months, healthy when taken. died in eighteen hours- His autopsy

failed to reveal any intestinal inflammation. And he is of the strong opinion that there is no intestinal inflammation, except in the advanced stage. I perfectly agree with him, for the stages run into each other so very rapidly that they are indistinguishable.

Treatment:- True cholera infantum does not call for the "expectant plan of treatment," but beyond most other diseases, it requires the employment of proper remedial measures, from the earliest possible moment, since the infant most rapidly sinks, if the evacuations are not arrested, or are rendered less

frequent and watery.

Regarding the disease as a violent ~~ulcerative~~ inflammation - for most assuredly it emerges into this stage so hastily that the inflammatory and the so-called non-inflammatory stages are indistinguishable in a true type of the disease - there is no difficulty in determining the therapeutic indications.

To control the vomiting and diarrhoea, an infant between the ages of eight and twelve months, should take one teaspoonful of the following mixture every two or three hours:

(over)

℞

Tinct. Opii, gtts. xvj.
Spts. ammon. aromat., ℥ss.
Bismuth-subnitras., ʒij.
Syr. simplex.,
Aquae, āā, ℥ij. Misce.

If only three or four months old, then take fifteen to twenty drops. If cerebral symptoms - rolling of the head, drowsiness &c - then do not add the opiate. At the same time a cataplasm of spice, ginger, brandy and water; - Vel - Mustard: Vel - powdered cloves and brandy should be applied over the chest. Some of high authority use the following to stop Vomiting:
℞ - Bismuth-subnitras. grs. v.
Deodorized Tinct. Opii, gtt. j. Misce -

Take this every three hours till vomiting is controlled.

Vel. Rx.

Creosote gtts. xiij.

Gum Arabic (Pulv.) ʒj.

Rub together well, and add Aquae ℥j.

Take one drop at a time.

Vel. Subcarbonate Bismuth in doses from x to xxx grs.

Vel. Small doses of calomel with chalk, chloroform and hydrocyanic acid.

Vel. Calomel gr. ʃ.

Saccharum Albi, gr. x.

M. viij powders. Take one every three hours till vomiting is arrested.

With reference to this symptom a careful regulation of the ingesta is requisite, and milk and lime water, given in small quan-

tity at a time, will often be retained when other articles of nutriment are rejected. After vomiting is stopped then the fever rises. The temperature even approaches that of Scarlet Fever. Then the child should be put into a bath of 102°, every two or three hours; be allowed to remain in for ten or fifteen minutes and then taken out and wrapped in sheets. Thus the fever is greatly reduced in the first twenty-four hours.
At the same time the sulphate of Quinine should be administered, to the amount of 1 gr. in twenty-four hours.
Death is sure to follow speedily if the temperature is not at once greatly reduced and then held in perfect obeyance.

As regards the diarrhoea, occasionally a laxative is indicated, and a few grains of Calomel in blue Mass followed by the syrup of Rhubarb are admirably adapted for this purpose. Mercury is doubtless chiefly recommended because of the convenience of administration to children, and it is simply indicated in the vomiting and as an occasional laxative remedy.

Opium, in some form, with due circumspection, is to be employed. It is most efficient when given by enema, provided it be administered with perfect care and retained. A very good combination would be a proper proportion of lime water, creosote, brandy and starch.

Vel.- Acetatis Plumbi. gtj.
Deodorized Tinct. Opii. gtx. ij.
Ice water should be used freely.
To relieve the pain may inject hypodermically gtx ij of the Deodorized tinct. Opii in a little water. It is always better to give a good dose of opium at one time than small quantities at short intervals. If given by the mouth, the Dover's powder is an eligible preparation. If the dejections denote acidity, chalk, in powder or mixture, or lime water, is indicated. The mineral and vegetable astringents are indispensible. The most efficient mineral astringents are, bismuth, lead, and the persulphate of iron. Some of high repute have found nitrate of silver very useful in this disease.

Of the vegetable astringents, Krameria, tannic acid, geranium, kino, catechu, haematoxylon, rubus villosus, have all been used with satisfaction and we should not fail to use some or all of them.

Prof. S. C. Chew of the school of medicine of the University of Md. says: "If dentition is a cause producing the diarrhoea in cholera infantum, by setting up reflex action from irritation in the gums, Bromide of Potassium would be indicated, since this drug relieves and controls nervous reflex action."

I think this theory is eminently worthy of fair trial-

Baltimore - Jan. 15th 1875

Attention to diet and regimen is of prime importance; for without such attention many children die. Pure milk is the most appropriate article of food. By adding boiled flour or powdered biscuit, or some other farinaceous substance, it may be rendered more nutritious. The diet should be simple and nutritious, or bland and non-irritating. Rice or barley water, or arrow-root boiled in water, and similar drinks should constitute the main diet. When the inflammation has subsided, and prostration, should be given Pure fresh milk and animal broths may then be allowed. The essence of meat, raw meat,

raked meat, broiled meat, have all been used to great advantage. The only rule of limitation for the quantity given at a time of the different kinds of food, is to be graduated by the ability of the stomach to retain and digest it.

Alcoholic stimulents are highly useful, in connection with diet. A few drops of brandy may be given occasionally with advantage. The need of a stimulent is shown frequently by the avidity with which children take it in these affections, & they should not be denied its use.

When partial recovery has been attained then removal from the city, or to some healthy locality is absolutely necessary.

Because in these affections, hope of recovery need not be relinquished under an assemblage of symptoms which may seem to render the prognosis as unfavorable as possible. Patients sometimes recover after lingering for a long time on the verge of the grave. The reason is, the affections, when they prove fatal, do not necessarily involve incurable lesions of structure, but a fatal result is due to protracted irritation, exhaustion, and innutrition.

If living in the city and sickly, by all means the infant should be carried to the country early in the spring, and especially, if fed on artificial food, in an unhealthy

or filthy locality and its parents being in reduced circumstances. If such a child is not taken from that city to the seaside, or to some healthy locality in the country, it will in all probability be taken with Cholera infantum in the summer season.

Very Respectfully

Thos. J. Floyd

A Thesis

on

Pneumonia

presented to the Faculty of Physic

of the

University of Maryland

By

W. M. Norris

Candidate for Degree of

Doctor of Medicine

1878

Pneumonia

Pneumonia is an inflammation involving some portion of the parenchyma of the lungs or pulmonary substance. There is distinguished by authors two different forms of this disease generally known as lobar and lobular but termed by some authers croupous and catarrhal. Lobar pneumonia commences by a congestion of the small vessels investing the air cells of the lungs; after which there is an amount of lymph thrown out consisting of fibrin serum albumen and also corpuscular elements of the blood. This gradually increases until the air cells become filled and

hepatization. If the disease terminate by resolution the serum and corpuscular elements of the blood undergo inflammatory degeneration and become mostly absorbed but partly expectorated. It may however terminate in gangrene and complete distruction of all the parts involved. In this case however it generally proves fatal

Causation

Pneumonia is common to all ages. It is less frequent in extreme old age and in children under five years of age. It is more common in man than woman; this is perhaps on account of his more dissipating habits and grater exposure

to the vicissitudes of the weather. The disease is generally brought on by exposure to wet or cold; cold damp habitations being a very fruitful cause. It may result from a traumatic injury inflicted upon the lung substance, from an acute bronchitis or some inflammation extending down the bronchial tubes until it reaches the smaller bronchioles and air cells. It is also very commonly developed in typhoid fever and measles. Exposure to dust is also a very common cause. Pneumonia is more common in winter and spring months than in summer and fall. It is also more severe in southern than northern climates.

Prognosis

With the older practicaners pneumonia was considered a very formidable and fatal disease. This however "think was owing to an improper knowledge of the pathology of the disease. Blood-letting and calomel being their sheet anchors as their practical remedies. There is however no disease in which the modern modes of treatment should deserve more praise or in which the mortality list has been so largely reduced. The prognosis at the present day however is I think very favorable especially if it be uncomplicated. Those cases which prove fatal being generally due to the complication of other disease; or cases in which an extensive part of one lung is

affected or it may be both lungs are involved at the same time. This I think is by far the exception and not the rule.

Diagnosis

There are many signs and symptoms by which the diagnosis may be made out with great accuracy. If a patient be seized with a chill high fever and sharp pain in the side in the neighborhood of the nipple with a cough and light fro[illegible] expectoration it would lead you to suspect pneumonia. But there are physical signs which would confirm the diagnosis much more accurately. If there be a fine crepitant rale heard over the chest on inspiration with slight dulness on percussion I think it would clearly establish

the diagnosis as pneumonia in the first stage there are other symptoms which mark the progress of the disease. In the second stage we have entire dulness on percussion with subcrepitant rale and bronchial respiration or perhaps tubular breathing. The vocal fremitis can also be felt at this period. The pulse usually becomes weaker. If the temperature range above a hundred and four in the first stage it is considered an unfavorable sign. It generally however varys from a hundred to a hundred and four in the first stage. If the case terminate by resolution there is generally a lowering of the temperature. In this stage we have the characteristic

rust colored sputa which is of a very thick tenacious character which is very pathognomonic of the disease. If this sputa be of a very dark character with a fetid odor it is usually known as plumbcolard sputa. It indicates that there is a gangrenous state of the lungs and that pus has formed within the lung substance. In this case the disease generally proves fatal. Lastly pneumonia may be complicated with many other diseases of which pleuritis is the most common. In fact we seldom have a pneumonia without some degree of pleuritis

Treatment

There are few diseases in which so many modes of treatment have been

adopted all of them probably with a con-
considerable degree of success. I think
however the older plan bloodletting
with large doses of calomel and an
timony was in many cases far more
injurious than beneficial. Admit-
ting however that these agents are
useful when used under some circu-
mstances if properly used. According
to the more modern mode of treatm-
ent the remedies that are applicable
to one stage of the disease is not indi-
cated in the other. If in the first stage
you should resort to bloodletting and
active cathartics you may cut short the
disease; stopping the inflammatory process
from going on in the lungs substance.
In this way you relieve the engorgment

simply by lessening the column of blood and deliberating it by the action of cathartics on the alimentary canal. In this way you may cut short the disease but I think it is a rather hazardous plan of treatment; for if it should fail and consolidation go on it would leave the patient worse off than before by weakening his vital powers; and the patient be less apt to recover than if antiphlogistic remedies had been adopted. I think however there can be no definite plan of treatment laid down that will apply in all cases; while in some bloodletting would be beneficial in others it would be very injurious.

I would say however if I were called to attend a case of pneumonia in a stout hearty plethoric man, if it were in the first stage with great pain over the part affected and high fever and rapid pulse I should consider it good treatment to draw a limited amount of blood from the arm or preferably by applying cups over chest. The use of saline purgatives with the administration of arterial sedatives are also very serviceable. Under these conditions opium is useful to allay pain; also for its diaphoretic effect, the use of aconite is very beneficial in consequence of its sedative and refrigerant effects. Tartarized antimony and veratrum viride also may

be used in small doses [illegible] not be pushed to the extent of producing nausea. Blisters applied over the seat of the disease or stimulating liniments and warm fomentations have all been found very useful; some however prefer the application of cold which is said to be followed with marked relief. There are many cases in which bloodletting and cathartics are contraindicated. In some weak and debilitated constitutions I think the stimulating would be best from the onset of the disease. In the second stage of the disease the treatment is tonics and stimulating. Much attention should be paid to the diet; light neutricious food should be given. Lemonade is very beneficial but perhaps the best of all diets is the free

administration of milk. The vegetable
tonics may also be given with good effect,
of which the sulphate of quinine is [illegible]
the best. Alcoholic stimulants may also
be very useful. But should the brain
be much affected they may be contra-
indicated. I think the best plan in
the treatment of pneumonia is to
watch closely the symptoms and lead
them as they arise by proper remedies
as there are very many complications
which may arise; the different charac-
ters of which would necessarily call
for different remedial agents.

Typhoid Fever

Synonyms. — Typhus Mitior. — Mucous Fever. — Common Continued Fever. — Enteric Fever. — Abdominal Typhus. — Mucous Fever. — &c.

Definition: The name typhoid was introduced by Louis, and signifies typhus like. Some writers object to the name typhoid as it expresses only a condition common to many other disorders. Dr. G. B. Wood has suggested the name enteric fever, while the German writers persist in calling it abdominal typhus. Though the nomenclature of this disease has varied much from time to time, no one name has been generally adopted; Among recent writers however the

to occur but rarely in infants.
Still, there is reason to believe that
many cases occurring in the first
years of life are not properly di-
agnosticated, being mistaken for
sub acute and protracted entero-
colitis.

Anatomical Characters: No al-
teration has been discovered in
the blood peculiar to typhoid fever,
fibrine is diminished in amount
as in most essential fevers, and
if the fever continue long or at
of anemia supervenes in which
the amount of albumen and
blood corpuscles is diminished.
And though we have as yet dis-
covered no condition of the blood

[illegible] occurs in a certain number of cases. The foregoing intestinal lesions are characteristic of [illegible] and are always present in a greater or less degree. They may prove [illegible] in various [illegible], [illegible] they may lead to death by producing [illegible] diarrhoea, they may produce copious hemorrhage and mortal syncope by laying [illegible] large mesenteric blood vessel, or, as perhaps more frequently happens, the ulcers of which I have written may penetrate the [illegible] and muscular coats of the intestine and produce rupture or perforation of its walls when [illegible] and which latter is nearly

[illegible]
[illegible]idious in its attack [illegible]
[illegible]monitory symptoms usually,
[illegible]
[illegible] be sudden. In most cases
patients cannot fix the precise
[illegible] of its onset, — so imperceptible
has the disease come on. Some
writers think that as a rule the
fever may be considered estab-
lished when the patient, — no
longer able to move about, seeks
his bed. But perhaps a more
correct time to consider the
fever as established would be
the time when the patient feels
the more or less pronounced chills
which usher in the disease.

Symptoms in some cases, the [illegible]
is furred, Epistaxis usually occurs
and there is a slight disposition to
diarrhoea, or if a purgative be given
at this time, hypercatharsis will
generally follow. There is more or less
pain in the loins and in the limbs,
complained of by the patient, During
this stage we also find slight acceler-
ation of pulse with increase of tem-
perature in the body. These Sym-
ptoms are now generally followed
by a decided chill, when, I think,
the disease may be considered fully
established. It is now that we have
exhibited the ordinary phenomena
of fever. The symptoms above ma-
-merated as belonging to the [illegible]

... Capillary Congestion, most marked on the face and hands, but extending to some degree all over the body [illegible] deficiency [illegible] the peripheral arteries through the [illegible] system [illegible] the symptoms most prominent, and which are referable to the circulation are, acceleration of the pulse, varying at different periods of the disease and [illegible] with the severity of the case. The more frequent the pulse the greater [illegible] the [illegible] of the disease. When the pulse rises to 120 per minute, or still higher the disease being [illegible]

as being very apt to prove fatal.
When, in the course of the disease we
find a sudden and marked in-
crease of the frequency of the pulse
we may fear it is being indicative
of the occurrence of pneumonitis,
peritonitis, or some similar gen-
eral. There are great variations
in the frequency of the pulse in
different cases. Its average frequen-
cy in exceptional cases, may be
even less throughout the whole
course of the disease than in he-
alth. Sometimes the pulse ranges
higher in the morning and vice
versa, but no regular exacerbations
of fever are indicated by the pulse.
When we find the frequency of

the pulse increased to 120 per minute its force is greatly diminished, and great increase in frequency, with great lessening in force denotes the approach of death by asthenia, which undoubtedly is most often the mode of death in typhoid fever. The fever thermometer, a little instrument which every live and energetic practitioner is supposed to carry with him at all times will aid us incalculably in ascertaining the variations of the temperature of the body in this disease, which, I need hardly add is of the utmost importance for us to know. If the thermometer be placed in the axilla or beneath the tongue it will

[illegible] the [illegible]. After this period the temperature generally rises to 103°Far. A higher degree of temperature than this, makes the prognosis grave, and if it happens to rise as high as 106° or still higher it denotes the near approach of [illegible] dissolution. A gradual decline of the temperature is evidence of convalescence, but a sudden and considerable fall of temperature is not so favorable but may be a precursory symptom of hemorrhage from the bowels. About the second day after the full establishment of the disease, in the majority of cases, there appears upon the

The characteristic eruption. It consists of rose colored spots (so named by Louis). They are isolated papules appearing principally upon the chest and abdomen, but also upon [illegible] the back. These papules are of small size of a rose or pink color, which momentarily disappears on pressure. They are not very numerous and are not invariably present, being less frequent in children than in adults. Considerable diagnostic value was at one time attached to sudamina, or small vesicles, which are sometimes observed on the body, in most cases during the latter part of the disease.

[illegible] this, [illegible] bed as [illegible] [illegible],
makes efforts to get out of bed
which are [illegible] after being per-
suaded to lie down. When the
delirium assumes a violent form
requiring restraint, as when the
patient shouts, makes persistent
efforts to get out of bed &c, it is to
be regarded as having a very ev-
-ident bearing on the prognosis
of the case, always rendering it
extremely grave. In one case which
fell under my notice the delirium
was extremely violent. The patient,
a woman 37 years of age, — a farmer
by occupation, manifested in the
very outset of the pneumonia
[illegible]

the disease previously and were
just convalescent at the time when
the patient under consideration
or rather the case referred to, died.
As I have already intimated, the
delirium of typhoid fever is by
most medical men believed, not
to be referable to any encephalic
inflammation, but, to the morbid
condition of the blood. This prev-
alent idea as to the cause of the
delirium, I think, may be safely
accepted as being rational and
in a very high degree of probability
correct. In typhoid fever the
sense of hearing is often affected,
more often it becomes dull,
sometimes produces deafness,

intensity in [illegible] to the extent of intestinal lesions, [illegible] evacuations are of an ochre color and if they occur involuntarily also indicate great gravity of disease. From intestinal ulcers may occur hemorrhage from the bowels & the disease often terminates fatally. Tympanitis over the abdomen is usually a prominent symptom and in nearly every case there is tenderness in the right iliac region, sometimes extending over the whole abdomen. This tenderness is sometimes only elicited by pressure, which is [illegible] [illegible] by [illegible] [illegible]. Late in the disease perforation [illegible]

asserted

[illegible] on [illegible] food, [illegible]
exposure to a foul atmosphere,
whatever its nature or source, are
all [illegible] producing typhoid fever.
It is to be highly recommended that
the intestinal discharges from a
typhoid fever patient shall be im-
mediately taken from the room
and buried beneath the surface
of the ground. Copperas, Chloride of
lime or some similar disinfectant
should be used in the sick room,
and the bodies of the dead should
also be sprinkled with disinfectants.
Diagnosis:- The distinctive points
of typhoid fever are the following: viz:-
the insidious attack and gradual
development, the nearly constant

be necessary to arrive at a positive diagnosis. Other fevers, pulmonary affections are require to be distinguished from this disease, but if we properly acquaint ourselves with the symptoms and features which are distinctive of them, and give proper attention to the characteristic symptoms of typhoid fever the discrimination will be comparatively easy. Where the case is not well marked, it is more difficult, yet if a sufficient length of time be allowed for its development a shrewd and careful observer rarely fails in arriving at a proper and correct diagnosis. A [illegible] might be said about the differentia

the peculiar intestinal lesions and diarrhoea of the former are absent in the latter disease. Typhus fever is also accompanied by a peculiar ammoniacal odour. These distinctions being borne in mind the differential diagnosis will be easy.

Prognosis: Many of the bearings the various symptoms of typhoid fever will have on the prognosis. I have already given when speaking of its clinical history, little, therefore remains to be said on this subject. Typhoid fever is a disease attended with many dangers, still with proper treatment and care of the patient, the prognosis can in general be said to be favorable

making applications of ice water, [illegible] or, what is still better, the ice cap may be employed. Sinapisms [illegible] per-sistent and troublesome Symptom relief may be had by giving the patient [illegible] the Stomach may be tried, [illegible], or small doses of tartar emetic may be given, [illegible] acid is also highly recommended by some Practitioners, Quinine will be found useful mainly [illegible] in consequence of its antip-eriodic effects. The abdominal pain and also the [illegible] of the intestinal [illegible] turpentine stupes should be applied to the abdomen. When the [illegible]

[illegible] [illegible], [illegible]
[illegible] plugs [illegible] hemorrhage,
it indicates [illegible] in the [illegible]
in the intestinal tract, and the Oil
of Turpentine should at once be given
in Emulsion with gum acacia
or some other mucilaginous agent.
The dose for a child is from
5 to 10 drops and for adults 10 to
20 drops, repeated every 2 or 3 hours
according to the severity of the case.
The Oil of Turpentine was first recom-
mended as an appropriate and ef-
ficient remedy in cases of Typhoid
fever, where such symptoms as have
been enumerated present themselves,
by Prof. Geo. B. Wood. His views
have since been abundantly confirmed.

-ent no practitioner feels that he is jus-
-tified in not employing it in the treat-
-ment of this disease unless he can
employ a medicine equally potent or
better. And while acknowledging its
great efficacy in threatened perfo-
-ration by ulceration, we may learn
from it as being even more useful
in intestinal hemorrhage which may
occur in the worst mild cases of typhoid
fever. Substituting measures are of par-
-amount importance in the treatment
of typhoid fever, and there is where
we may expect the best results from
the judicious employment of alcohol.
Alcohol acts as an article of food in
such patients, and thus their digestive
powers are weak and utterly inadequate

in 1869, The antipyretic properties of alcohol renders it also an appropriate remedy in the treatment of typhoid fever for the very obvious reason that it lessens the temperature of the body and thus lessens the danger of the disease. A frequent, feeble and compressible pulse with feebleness of the first sound of the heart are indications for the administration of alcohol. If after the administration of stimulants the skin becomes cool and moist, the tongue moist, the temperature less and the pulse stronger we have evidence of its beneficial action and may continue its use, should we find however that after its

[illegible] distended by the retention of urine the catheter must at once be used. If bed sores occur the position of the patient must be changed and alcohol, or oil of turpentine with oil of copaiba applied to the sores. If blisters are used they must not be applied when the fever runs high. If peritonitis supervene opium must be given internally and poultices be applied to the abdomen.

On the whole the treatment of typhoid fever resolves itself into what we have already termed expectant medicine or that of meeting developments and treating them as they arise. If complications [illegible]

Thesis
Respectfully submitted to the
Medical Faculty of the
University of Maryland
for the
Degree of Doctor of Medicine
by
Winnett Norris
Washington Territory
A. D. 1878.

Gentlemen:

As it has long been the custom by those who apply for the degree of Doctor of Medicine to select some subject directly connected with Medical science I but drift in the path of my predecessors and cheerfully endeavor to do as well as my slender abilities will permit. I am also cognizant of the fact how imperfect must needs be my efforts as I have no storehouse of practical experience to resort to; but transmit as best I can the facts deduced from lecture rooms and text books. In consideration of these facts I respectfully ask your indulgence.

J. D. Norris.

Scarletina

There is perhaps no acute disease of all the diseases incident to childhood which presents greater varieties of aspects than Scarletina. It appears under every grade of violence from the simplest and least dangerous to the most severe and malignant forms of disease. This disease was distinguished from Rubeola three hundred years ago by Philip Ingrassius of Naples. It was then known as Rossalia. It was however constantly confounded with Rubeola until the end of the last century when its distinctive characters were more fully pointed out by Withering. It seemed to more mild in its character and was represented by

Sydenham as the mere name of a disease much less to be feared than measles. The febris scarlatina described by Sydenham must therefore have been of a very mild kind. It is a disease whose intensity varies at different periods. It is spoken of by Graves in the early part of the present century in his clinical lectures as committing great ravages in Dublin. Its type was most formidable ending in death as early as the second day. We find again that scarlatina epidemics occurred from 1804 to 1831 but assumed a milder from during the latter epidemic — so comparing the mortality at the diff-

[illegible] periods many were led to believe that the mode of treatment instituted during the former was an erroneous one and were ready to believe that the diminished mortality was entirely due to the [illegible] of [illegible] and the [illegible]. It was taught in the medical schools of that day and scarletina was quoted as an example of the efficiency of the new doctrine. But in spite of boasted reasoning they were not more successful in 1834-5 than were their predecessors in 1801. It would appear presumptious in me to point out what course it would have been proper to have pursued

in regard to treatment, but I think it would be in accordance with more modern ideas to say that the lancet should not have been resorted to so hyperbolically at least, in relation to the particular character and violence which the morbid conditions of which this disease assumes a variety authors have divided it into three viz. simplex, Anginosa, and Malignant. Rillet and Barthez describe two - the normal and abnormal. Meigs two the mild and grave - but most authors three or more.

Anatomical Characters

The essential phenomena of this disease is the eruption on the mu-

[illegible] of the body and the effects of the [illegible] morbid conditions of the mucous membranes of the stomach and bowels similar in appearance to that found on the cutaneous surface. From microscopical investigations made by Dr. Samuel Fenwick in a certain number of cases a change similar to that being enacted upon the surface was undergoing in the stomach tubes and mucous follicles of the cholera. Fibrinous casts of these tubes in the stomach and intestines and even desquamation of epithelium took place. Post mortem examinations of forty five cases that died of different diseases was made and similar appearances were wanting save one

and the case was one of Jaslitism

Clinical History.

The attack is generally ushered in with the usual signs of fever, cold chills, nausea, hot skin, frequent pulse, and thirst. The chill though is not infrequently wanting. The eruption appears generally in forty eight hours first appearing upon the neck, face, and breast and gradually extending over the trunk. Authors do not appear to exactly coincide on their views as [illegible] the first site of eruption. Dr. Plant states it often appears on the body and limbs before making its appearance on the face, but admits on a certain proportion of cases it appears on the latter situations first. The rash consists of innumerable [illegible]

joints. I saw it exceedingly well
marked in a case that came under
my observation last month in [illegible]
when the eruption was just disap-
pearing when the diffused redness was
just giving place to the [illegible]
the [illegible] vesicles in the flowers of the
joints, and the remarkable [illegible] appear-
ance presented, were still prominent.
From the fourth to the sixth day
the eruption and fever are [illegible]
[illegible] at their complete state of de-
[illegible]. The [illegible] is sometimes
shorter and on the fifth day [illegible]
usually begin to decline and con-
tinue to diminish until they
have gone off entirely about the
end of the seventh day. It

may be prolonged to eight or ten
days or even extend to a still
[illegible] period. When the eruption is
just disappearing the tenderness of
the fauces abate. We have [illegible]
perspiration. The urine deposits
a brick dust sediment on cool-
ing and in some cases we
have discharge. The character
of the desquamation is like scales
or laminae which begin to
be thrown off at those parts
where the eruption first begins
to appear. The duration of
this period is indefinite some-
times complete in five or
six days but generally com-

filled from ten to twelve but exceptional cases continue for several weeks. The foregoing is simply the usual phenomena presented of the milder forms of scarlatina without complications. The cases as ordinarily found in practice will vary in intensity some presenting a mild form while other forms will be violent from the outset followed by delirium coma and occasionally convulsions. The pulse will range from 150 to 160 beats per minute. If the eruption is slow in making its appearance we may augur ill of the case but if the eruption appears early it will possibly assume a milder form. Delirium

may be the result of uremic poisoning. So we find in a certain proportion of cases disease of the kidneys as an important complication. Albuminuria manifests itself either during the eruptive or desquamative stage in a proportion of one to two. If the urine is examined renal epithelium and granular casts will be found with or without albuminuria. Hence the importance of examining the urine not only for the purpose of detecting albumen but also for casts and urea. If the throat is examined into you will not find so much swelling of the fauces as in common Quinsy but a diffused

redness including a large part of the palate. After a short period you will find whitish exudations or grey crusts forming upon the tonsils and vellum & we have a slough ulceration left by the separation of these crusts. These acrid matters coming from the ulcerated surfaces extends to the posterior nares and involves the Schnederian membrane of the nose thus causing an excoriation of the alae nasi and upper lip. These same acrid matters may affect the alimentary canal in the same manner thus giving rise to diarrhoea. There is still another condition very common with these

throat affections and that is an inflammation of the Eustachian tubes, a distention of the tympanum itself, and of the small bones causing deafness. The occasional sequels of this disease are Pleurisy, Pericarditis and acute articular Rheumatism

Causation

Scarlatina arises from a specific contagious miasm which likewise other febrile contagions appears to be much under the influence of certain atmospheric temperaments as is manifest from its occasional epidemic prevalence as well as from the various grades of violence which it has been known to assume

of different epidemics." The infectious miasm says Dr. Flint may be carried on the clothes of Physicians, Nurses, and others." It is a well known fact that persons have been attacked on returning to houses in which cases have occurred for weeks and months afterward and even when great efforts had been made to remove the miasm." Some authors assert that they never witnessed a second attack of this disease and deny the possibility of this occurrence, but equally respectable authority have adduced the fact and that it does occur though rare is sufficiently established.

Diagnosis.

The only diseases with which Scarlatina is liable to be confounded are Urticaria and Rubeola and in the two milder forms the disease is indeed attended with some difficulty. Nevertheless the following circumstances will almost always enable a physician to distinguish between the two above mentioned diseases and Scarlatina. In Scarlatina the eruption generally comes out within forty eight hours, whereas in Rubeola the rash rarely appears until the third day and perhaps not until the fourth again if after exposure to Scarlatina a person is seized with intense fever

the pulse rising to 120 to 200 more and the temperature from 102° to 105° there is little doubt the disease is scarlatina.

Prognosis.

The prognosis in scarlatina must of course be extremely various depending on the form of the disease whether it be of a mild or severe attack. If there is great increase of temperature, convulsions in the first days, a rapid rise of temperature the dusky color of eruption it indicates an unfavorable termination. The prognosis is also unfavorable in which the throat affection is unusually severe. Uremic convulsions

involve imminent danger. A regular abatement of the heat of the skin, a subsidence of the frequency of the pulse and finally desquamation of the cuticle indicates a favorable termination of the disease.

Treatment

Scarlatina in a mild form and without complications requires but little treatment. In judging of the different plans of treatment and their value it must be considered that some cases are so virulent that no treatment will save the patient that other cases are so mild that they will recover if left alone. There are no known

To
The Faculty
of
Physic.

Science
and
The Successful Physician.

by
Mr Will C Bateler.

1877-78

Science and the Successful Physician.

An inaugural dissertation submitted
to the examination and criticism of
the honorable faculty and regents
of the University of Maryland,
for the degree of Doctor of Medicine,
by A. W. C. Bateler of Middletown
Md.

Dedication.

To the Medical Professors of the University of Md. This humble production is respectfully dedicated as an evidence of my gratitude for their instructions imparted, and the esteem which I entertain for their admirable qualities as men, and their energies in carrying to its acme the noble work in which we have now engaged.

For our departed President - upon his green and quiet grave do I lay this tender flower as an emblem of love and respect, and a tribute, though humble, to the laurel crown which will ever perpetuate the memory of his life.

Introduction.

There are few subjects at present, engaging the attention of the Professional world which combine more interest to the investigating mind or more vitally demand our concentrated attention, than the intimate relation of the different branches of Science to this the Latter Science - Medicine.

We cannot but express the great delight with which we note the increasing interest manifested in this subject as years advance and learning spreads. Still we fear, comparatively speaking - that the harvest is abundant and the laborers few. We have with diffidence undertaken a subject so abstruse to one inexperienced and with no idea of adding any new theories or contributing an "iota" to those already promulgated; rather desiring to

develope in ourself an excited interest in this important subject. Impressed with this sentiment, I have chosen a subject on which I have had no treatises to read, and but few hints to aid me and the crude materials here contained have been mostly supplied from my own limited experience in Scientific study. As to perspicuity, the author has particularly to ask indulgence. Fearing from the novelty of our subject that our efforts to simplify may be somewhat compromised.
Clearness should be the prime endeavor of all writers, compared with it, eloquence and wit are mere servants. In an entertaining treatise, each fulfills an appropriate end; the one is directed to the mainsprings of feeling; the other quickens our emotions and pleases the fancy, whilst the first

gives an unobstructed approach to the author's meaning and intelligence. Realizing our inability to perfectly attain these prerequisites, we will endeavor to be accurate in thought and clear in expression, any deviations from which we trust will be leniently dealt with. Submitting these apologies we will precede with our juvenile production, hoping it will not prove entirely unworthy the perusal of my honorable Superiors.

By Science in this connection, we beg leave to treat the subject in a restricted sense confining it to a brief consideration of such of the Metaphysical and Physical Sciences as bear most directly upon the Physician and his Profession.

The Successful Physician.

We would be understood as alluding to him who, as a patient student of Nature, and a correct observer of her important relations to the functions of life, has learned to know man, to support him in health and restore him from disease. We would dismiss from any consideration one, who by sly and subtle arts has attained a glow of worldly renown or "Castle" of financial ease. It is only him who labors earnestly to know for, ("knowledge is the true end of labor") and who conforms his attainments to the relief of suffering, that will gain that success embodied in the true glory of our Profession. The training of the Physician is, when thorough, a grand and beautiful process of discipline: it is the gradual ascent from the lower and elementary to the higher and more

complex

and for a mastery over all he must have an accurate knowledge of each. His knowledge is one grand whole composed of vital parts, each bearing an important relation to the other and the whole.

First in order and importance, we think that the untutored mind inclining to Medical love, should pass through a process of Philosophical training and after mastering the primary elements be subjected to Psychological drill. By it alone, can we obtain an insight into the activities of those phenomena which constitute that soul which is the breath of God - the essence and animation of our clay. Without the intelligent self consciousness imparted, by metaphysical study, we grope in Cimmerian darkness. We can know very little of self and little of that fellow-the counterpart of our own nature.

Psychology. The importance of a knowledge of soul is not an invention of today. Travelling back down the dim vista of centuries, we find that this morning-star of intelligence shone, though dimly, through the clouds of superstition which enveloped the ancient world. Standing alone, upon the rough-hewn walls in the temple of Apollo, was to be seen this warning-Know Thyself!

The true interpretation of this terse admonition, for ages was veiled in darkness. It remained in all its pristine glory revered by sages and unexplained by "the oracle" All failed to understand it, hence none applied it and ages of ingenuity did not divest it of one shade of its practical application: nor was it until Socrates-the Aurora of the world's Philosophy, arose bright in Athens,

that the veil of deceptive ignorance began
to fade. The great perplexity which then as
well as now, attended the assimilation
of this adage is explainable from man's
natural failings. Conceit, pride and self-
ishness all served as barriers but a defective
appreciation of the necessary qualifications of
the learned, doubtless played the most dis-
astrous part. Is it unnatural for us to ex-
pect that, the supposable culmination of all
animal existence, a creature shaped after
God's own image and the stepping-stone between
nature and immortality - should know first
of all, himself, both practically and theoretically?
Should he not study that intricate Philosophy
which unites in him all the powers and
beauties dispersed in nature? Should he
not know something of the laws which

hold the planets in their places; the Chemistry of the soil he cultivates; the laws of vegetation and crystallization which control its silent but unceasing evolutions. Above all, should he not have a knowledge of the more subtle relations of mind to matter which constitute the phenomena of life.

But how is this knowledge to be obtained. It can only be answered - gradually by persevering study and exact observation. He must analyze and combine; not only the truths of external nature but first, the philosophy of his own. He must know something of the mainsprings of action - the reason and will, those sublime elements of his nature which constitute his mastery over inferior creations. Thus only can we obtain a knowledge of man; but

even then it will be superficial, unsystematized and incomplete, and of what value is knowledge without system; it is as the unwieldy mass of granite, but a stepstone at the workmans door; as impracticable theories used by and useful to none. To avail anything from our labors, observation and induction must go together; as with theory and practice, "useless each without the other."

We may labor to know the phenomena of soul but unless we are able intellectually (and dare I assert morally?) to make proper and systematic inductions, we have gained nothing. What process of discipline will enable us best to intelligently appropriate our knowledge and hold it in a ready grasp for usefulness? It is surely that imparted by Psychological

study

That places us on the firmest vantageground in our relations with an outside world. Seeing then and appreciating the fact, that a knowledge of mental philosophy so well subserves our general relations with life, how much more so will that promote our success in the special departments of Science. We have the Physician seeking success in a special branch of Science. To whom could a thorough knowledge of mind, its environments and their relations which constitute life be more useful or absolutely essential. He must know something especially of the mind and soul in health, for it is now his province to administer to them in disease. He is brought face to face with nature: he sees her in the highest types of superhuman endowment

and must administer to her when shattered by disease or deformity. What better avenue of approach to a disordered nature could we possibly pursue than a study of her functions in health?

But it is too true this precaution is largely neglected and here has arisen the hostile array of empirics - "Homeoquacks and Alloquacks," who are casting such disgrace upon our ranks. Too few Medical Students are careful to lay the proper foundation: we admit it with regret! We believe men's tastes are naturally averse to the more profound and too many are allowed to follow their own bent or inclination. We should prune, bend and turn them, when young and plastic, into proper courses of thought and practice: for this the land now teems with Colleges and Universities.

The Medical Student should early learn that superficiality avails nothing.
If it is to evident to discern - to know the philosophy of abnormal phenomena in others we must first study them when normal, in ourselves.... All Sciences have a nucleus which is the governing spirit of the whole - just so with Medicine, it is mental philosophy and scrupulous mental drill which are to constitute the beacon-lights to illumine our rugged pathways.
Psychology supplies the penetrative intellects which are to analyze the abstruse and abnormal entities of professional life. It opens to us grand avenues of thought and reservoirs of elastic love. It is the root of pure intelligence and is the guide of that "mysterious Land" which will crown our endeavors with "the laurels of success."

Logic. Having to more or less avail set forth the importance of mental drill subjectively speaking, we will now consider this knowledge in an objective sense. We will suppose this explaination of the necessary training accepted and proceed in our endeavor to estimate its value when systemized by logical elaboration. It will be conceeded that in proportion as our cognitions and volitions are advanced and cultivated, so will our intuitions be more acute and ready to supply proper means of classification. Having then the ennobling prescience, it remains for the student to apply the disciplinary and invigorating process by which his natural manner, his habits of attention and correct discrimination are regulated. In the study of Logic we fully realize this necessity.

While we would not depreciate any valuable knowledge, we feel justified in giving great precedence to that which sets forth the laws which govern our intellectual states; hence Logic. "This has been called by some the Science (and by others the art) of the necessary laws of thought or thinking," from which we interpret a philosophical knowledge of those rules the conception of the opposite of which entails intellectual suicide. It is the invaluable resource from whence are drawn the terms which "define the true nature and relation of our thoughts": it gives system to our perceptions and as the "Philosopher's stone" shows us the truths of existence and guides us through nature, up to nature's God. It directs us aright and supplies us the skill requisite to a mastery

over many departments of study by exposing their fallacies and enhancing our desire for a pursuit of their truths and beauties. As the light-house to the storm-driven sailor, is Logic to the eager student, it illumines his pathway, guides him aright and prevents his wandering into aimless and erratic exercise of his intellectual powers. From its invariable necessity to the educated man it has received the merited distinction of Scientia Scientiarum.

Nowhere would we deem this invaluable branch of science more necessary or the results of its study of more lasting application than to the Medical mind. The advancement of the Physician is through careful observation and inductions. Psychology leads him into deeper and more

intelligent habits of observation; while Logic trains his mind to more correct interpretations of his observations and experiments.
Experiment is only observation aided by artificial means, and is to none of more importance than the Physician: by this we do not mean the aimless guesswork of the empiric but the fair and honest trial of means to a peculiar end: still, experiment is valueless without that veracity of thought embodied in an ability to correctly interpret. Observation does not vouchsafe a reliable answer to our queries, it depends upon induction. One may torture all the dogs, frogs and rabbits in a community and at the end of his labors not have profited, in the least, or have added an iota to the store of previously established facts. We must lead our

minds into those avenues of thinking which enable them to hypothesize fairly and correctly. We must be able to introduce new theories suited to the result of our investigations. Doubtless, many a gem of discovery has been dug from its slumbering Class and from inability of the investigator to divest it of its grosser qualities, been carelessly returned to its primal crudity.

It was not merely the fall of the apple that placed within every schoolboys grasp the universal law of gravitation; it was the induction of a superior mind, one that could draw an intelligent inference from an accidental fact. Could we suppose that Newton was the only one of his day who witnessed the fall of an apple, we insist it was not all the apple but it was the Newton, who toneled

the mainsprings of creation and set for us the world in motion. Observation when unassisted will avail us little. We may cull from the uncultivated beds of science, beautiful gems of her love but it requires the Logically trained mind to classify, arrange and simplify them for acceptance. As in sculpture or painting to execute the finished specimen, it is necessary that we have the educated and foreseeing mind to lead the untutored chisel, as it draws forth life and beauty from the dull cold marble or to guide the brush, as it animates with living loveliness the unmeaning canvass. Even so, in our professional pursuits we must have the Philosophic mind to pick out the true, eliminate the false and from an assemblage of symptoms, arrive at an exciting cause.

But it is not expected from the apprentice to execute the most polished specimen, so we trust it will not be expected from the student, or the young practitioner to have mastered all the intricacies, theories which constitute the life of his profession; still, it is in the beginning that we must lay the groundwork and daily is he who appropriates the proper material. Sadly wrong will be the theory and practice of him who fails in laying the proper groundwork. We should never forget the indubitable fact - there can be no conclusion from a negative premise and our inferences must be drawn from sufficient reasons. There is no better opportunity for the display of a logical mind, than at the bed-side. We have here an assemblage of obscure symptoms which sometimes tax to its utmost, the patience and philosophy of our beings!

At the sick-bed, the Physician is, almost unknowingly, called on to generalize and abstract; from the correctness of this his conclusions are valued. This is what makes the Diagnostician: careful observation, exact reasoning and Logical induction and what is more essential to success! Thus we can perceive - Logic is our indispensible - the "sine qua non" to our success. If it is to Psychology a twin brother - how could we understand the formal laws which true thought must obey in its application to the discursive faculties without properly knowing the Philosophy of those faculties? it would surely be very unsatisfactory. As has been suggested, why torture nature with cruel experiments without understanding her language in response or the sick without knowing first those laws whose deviations form their infirmities. Sufficient, for the two vital elements of our Metaphysical love.

Physics. We will now discuss the importance of the Physician's understanding external nature.

The training of the mind, though, incomplete without a knowledge of the metaphysics is by no means complete with such knowledge alone. There is another domain of Science with which he must become acquainted, and in which we believe his labors have been and still will be, rewarded by the most abundant return - it is the Science which treats of the laws which regulate external nature. Under this division we include a review of the importance to the Physician of a knowledge of Philosophy and Chemistry with brief notices of Botany, Biology and Geology until we arrive at the proper beginning of his Professional Studies - Anatomy and Physiology. Coming to his study with a fair knowledge of mathematics and,

the languages, the Student now proceeds to a study of Physics, Chemistry, Anatomy and Physiology. He thus firmly fixes the scientific basis for a successful investigation of all the manifolds incident to the structure and function of that grand masterpiece of mechanism - the body. Without these prerequisite studies, he cannot become the reliable well grounded Physician who will improve by experience and on whom the distressed may rely for aid and relief; he can never build, for his groundwork is bad. From studied routine and well worned imitation, he may be able to appear in an Ephemeral glare but when encountering the world's inevitable and burning criticism, he will shrink into an eternal and ignominious oblivion.

In sketching out the above subdivisions, we would not be misunderstood, they are purely

Arbitrary.

We would not disregard the invariable continuity and interdependence of the Sciences or neglect to remember that the truths of one have a relation to truths of all and that they form one connected, indissoluble and mysterious whole. At a glance, it may seem frivolous but the unity which pervades our planetary sphere is exactly portrayed in the following verse-

"For a single atom chance to stray, the whole of nature would hasten to die"

Regarding thus this interdependence, what do we conclude; as in studying our moral nature to understand it well, we must know the Metaphysical laws which control its being; so in Physical research, to know one Science, we must know the one or more on which it depends. Physics lies beneath Chemistry, the latter beneath Anatomy: Anatomy and Physiology go hand in hand. Who could think him an accomplished Physician who knew nothing of the

peculiar properties of solids, liquids and gases; of the laws of akoustics, pyronomics and optics or the different kinds of electricity. Besides the honor of having some knowledge of the same, how can the Physician succeed without it? Has he not constant recurrence to Hydrostatics, Hydraulics and the processes of capillary osmosis, effusion, absorption and imbibition. What would become of one professing a knowledge of Physical Diagnosis who knew nothing of the propagation and transmission of sound through media of different densities? How can he avoid knowing something of heat or its production; it seemingly forces itself upon him; and as its successful management constitutes his prime glory, should he not learn of it everything available? How can he dispense with the Thermometer or the principle which governs the rise and fall of the mercury? What would be the progress

of the Physician, knowing literally nothing of the principles of calorimetry? he would be held in the same sympathy as the teacher of Logic empaled upon the point of a horned syllogism! In the same esteem we would hold the oculist or Optician knowing nothing of that unfonderable agent the effects of which are visable on the retina, awaiting in us the sensation of light. With the advance of Science we meet another great triumph; it is in the comparatively modern application of Electricity to Therapeutics. Unfortunately the employment of electrotherapeutics in this country has been too much in the hands of empirics, who know little of the agent they employ and less of the important organism they make subject. Such honor would this grateful posterity be paying the labors of our illustrious ancestor by neglecting the transcendent glory which crowned the experiments of Galvani!

In truth we find here the field for remark so extensive that to be consistent with our initiatory promise we will now pass into that border-land of Chemistry where still may be traced these all-pervading laws.

Chemistry: that a thorough knowledge of this branch of study is essential to an intelligent practice of therapeutics will be denied by none. Since the Physician is constantly dealing with the material elements of the earth in his compositions and combinations, what must be his embarrassment on finding himself a stranger to some of the simplest forms of matter to which he has constant recourse! The importance of a practical

knowledge of this branch of study we believe is underrated in most Medical Colleges. We could have no better criterion for judgement than the meager facilities generally afforded for a practical pursuit of experimentation and investigation. Instead of its being regarded an important pillow in these temples of knowledge, we fear too little stress is laid upon it and the proper interest not excited. - How can a practical knowledge of this important branch be best attained? We are met by the undying answer - Observation and induction, observation aided by experimentation: the former is of but minor importance. We may sit patiently and witness the performance of a score of experiments and reap not half the benefit of him having performed a single one; here again, we have the only subservient to practice.

To be merely a looker-on, those of unfortunately if not acute vision are at a double disadvantage. These common deficiencies must be compensated for, and how is it to be done - we would suggest, rigid State or University laws requiring the Medical Student previous to his becoming a matriculate, to have passed, at least, one year of practical analysis in a well-conducted laboratory; but we fail in this important legislation and what is the next best to resort to, as I hope to do in the future, let each young Physician constitute one, in private, for himself. Without constant recourse to experiment & test, our Chemical love will suffer the canker of age. Time and the march of science wait for no man; the busy bees will work and the drones are expunged from the hive. The stethoscope, the test-tube and spectrum have opened to us magazines of knowledge hitherto unknown

and unless by constant resort to test, we keep face with the onward evolution of matter, we will be down-trodden and neglected, by the march of an army of workers.

Knowing the different fields of labor in which the young physician is often thrown from accidental circumstances, a knowledge of the different kinds and departments of Chemistry is a necessity. All cannot practice where Pharmacists and Chemists exist but many will have to attend to it themselves. Hence the importance of a knowledge of composition and decomposition - agencies continually at work in the composition of his medicines and the destruction of his patient. Air, food, water and chemicals all comprise the same few elements in various states of combination. An acquaintance with the properties of these, their relation to the economy when properly or

ignorantly used and the forces which govern their combination in poisonous or salutary doses, will continue to be of interest to man, as long as it is his greatest of all pleasures - to live. Chemistry teaches the young Physician the operation of all substances when brought in contact with the tissues and the proper antidote when poisonous action is set up. It gives him an insight to the ceaseless interchange of matter which constitutes his life and when irregular, his death; and is to him as that powerful but "mysterious" "wand" by which is staid the inexorable arm of Fate. It opens to us the progress of ages and is the key to nature's most intricate problems, wielded by Davy the immortal, we were blessed with Sodium and Potassium, in the hands Priestly, God divulged to us oxygen - that secret, indispensible to all life and combustion.

Like these bright geniuses, the Physician is invited only to study from the book of nature and his reward will follow. "Nature the mother of us all, has inscribed her unfading, her eternal record upon the canopy of the skies and she has strewn it all around us on the platform of the earth." She does not command us what to do nor order us what to think". She only invites us to her great laboratory to investigate and work; when it remains for every honest laborer to apply his attainments to the advancement of his own and his fellow-man's estate. "For him who neglects her, she has no revenge"; it is only his own misfortune; there is no social ostracism save the intelligent man's instinctive hatred of the ignorant and inert. "To him who, in purity of spirit, worships in her heaven-pavilioned temple,

she offers her guidance, to that cloudy shrine, in which truth sits enthroned, dark with excess of light. Shall not he who volunteers to study the language of nature, to interpret her hidden meanings, to wrestle with those laws "infinite in influence and eternal in duration", reap that success promised by the Omnipotent to every worker in his vineyard who would vindicate his Magesty." For, these eternal laws of nature are but the secret thoughts of God.

With this consideration of the preliminary training of the Medical Student, we have now arrived at the beginning of his Professional Study. From what precedes, it is surely evident, at what a vantage-ground the Student would be, thus brought, in what a commanding position his training would have thus placed him, how well adapted would be the mind to reflection.

Even be his inclinations changed from a pursuit of the Medical Art, what an excellent foundation has he implanted on which to build. For man could be better fitted to understand the world or the men with whom he must deal!

As the trite maxim, before we can well govern, we must learn to obey, or, before we can know man well enough to be the great teacher - the Doctor, we must know something of that claim of mysterious laws which govern his own nature.

We begin now with the Study of Anatomy and Physiology; in the former we find the result of those delicate operations of matter denominated, Chemical Action, combining atom into molecule, molecule into substance and substance into organism or the grand mechanism our body.

In the latter we have active, true, ceaseless and infallible, metaphysical and physical laws giving life to the most organism the exactness of which is guarded by the wisdom of God. To study the function of a part, we must have first the part and a knowledge of its structure - hence the precedence of Anatomy to Physiology. We will proceed next with a brief consideration of some subsidiary branches most likely to be overlooked. Here Botany, Biology and Zoology demand brief notice.

Botany bears so particularly upon an understanding of Materia Medica, that without it classification would be impossible, another prime element of confusion and embarrassment.

Biology, though it may seem as patent as the fact that two and two are four, to decide between the plant and animal we may here go astray.

In this quaint borderland of Nature we find room for a display of man's most discriminate talents and judgement: but since it is our pleasure to deal only with nature's most consummate species, for the present, we will waive further tedious discussion!

Biology fixes our convictions in the belief in man's independant and supreme position in Nature. We need only peruse comparative Anatomy for this point or follow the classification of Vertebrata from the Stageless protozoa to our own situation.

Geology: whilst it is not a link of vital importance in the Physician's chain of knowledge, from its comprising the most important of Nature's laws and relations, it must be to him of exceeding interest; it heightens the quality of his attainments and fixes his attention more accurately to the many Phases and Phenomena of Nature with which he comes in contact.

Having closed our tedious consideration of the essential elements of the Physicians Education, we will conclude with a review, though desultory, of other equally important conditions.

Nature has actuated the Student to adopting the Medical Profession as his life work, we feel sure, by following the course of study sketched in our preceding pages, none will have reason to regret his choice. He proceeds "pari passu" in the order of Nature from the simple to the more complex, advances from one observation to another until his acme is reached - in Eternity alone.

The many Quacks, Empirics and intellectual Caitiffs thronging our ranks are instances-not of the earnest, patient worker who climbs step-by-step up the Hill of Science but of him who has made stepping stones of a suffering humanity and by vain practices, attained an ephemeral glare of earthly fame

It is for us next to direct attention to the cultivation of the practical man. By this we mean, one capable of practicing his profession in an easy, unconstrained, and acceptable manner: Since life itself has been divided into the three stages of youth, manhood and age, let us in this morning of our existence, cull such gems of learning from the "Elysian fields" of Science as will bedeck the snowy crown of age and enshrine our lives in the grateful memory of posterity! True, if we know nothing of the starry firmament over our heads; of the air we breathe, of water, light nor heat or the great mineral resources whence come our remedies, we might be justly termed an intellectual effigy; but knowing all this, and devoid of the last of its practical application, we might, on the other hand be termed a practical ignoramus.

Valuable! is that head crammed with theories which, from extraneous circumstances never meet with application. Woe! will come upon him who, by arrogance or mistaken ideas of social worth, refrains from directing his attainments to the relief of the poor. He is enthroned upon a pedestal of conceit the eventual overthrow of which is inevitable: he is as wise as "the Philosopher" who tore off his nose to insult his face! The true honor of the Profession enjoins upon us, kindness, moderation and forbearance: intelligence is not always an innate endowment; how great then is the error in any thus wickedly and willfully perverting the Gifts of God. We do not advocate a unmerited submissive condescension of manner, such would place the unhappy Physician beneath the honor of his Profession, he should entertain a respect for himself and by mild determination and gentleness, the respect of others will follow.

The Medical Profession seems to offer the very best opportunity for a display of man's nobler qualities. It calls forth not only the originality and height of his intelligence but the depth of his moral nature. In its experiences, it touches the springs of sympathy and calls forth that kindness which makes out the physicians and fixes the confidence of our patients: but no student of Medicine can successfully model his career from the life and experience of another; he must revert to himself, appreciate his own deficiencies and proceed to renovate himself. He must apply his own heart and mind purely and earnestly to an acquisition of the necessary knowledge, in fine, he must be true to himself, and it will follow as the night, the day- he cannot then be false to any man! Sincerity, patience and energy are additional elements to his success. Unless, we are sincere,

we cannot fix the confidence of any to whom we are called to administer; this distinguishes the true Physician from the untutored and vain-boasting empiric. Patience; in our Profession as well as in our general relations in life, will never cease to be a virtue. It was essential to an acquisition of those eternal laws concerned in our preliminary study and is no less essential to their successful application. Failure must attend the Physician who, when confronted by the involuntary whims of a nervous patient, will manifest the unamiable features of his nature. Here is an excellent test of man's intrinsic worth, he has presented an opportunity for a mastery over obdurate circumstances and doubly valuable is the victory thus attained.

Appreciating then what an excellent thing is the Medical Art, to call forth and put to practice

Five elements of moral and educational value, what next is required for us to shine above the mediocre who snail-like streaks with a deceptive aspect every department of science? One thing yet needed is an energetic determination to conquer the many difficulties which will beset us. But this determination must be guarded. We should not set forth from Collegiate walls blinded with conceit and determined to annihilate every theory not conforming to our own.

We must not misinterpret the real meaning of a diploma; it is not a license upon the credit of which any fool may do as he pleases; it is not a shelter by which to clap those of inferior advantages, nor is it an instrument legally certifying that we have mastered our profession and need no further study.

On the contrary, we should regard it as our certificate of entrance to a School, where our tasks are many and our labors hard. Too many regard their graduation as their laurel crown when it is in truth the mere completion of their first step toward success. It is their entrance to the great School of experience and laboratory of Nature where study is the motto, perseverance and experiment the watchwords to success.

It is at no time the part of the Physician to exult in the overthrow of articles of faith which have sustained men in the dark hours of life and the still darker hours of death." It can be no pleasure to a generous nature, inevitable though it be, to shatter the faith of even the

poor Indian who, driven from his hunting-ground by the inexorable fate of a stronger race, looks up with feeble faith to the Great Spirit and forward with a dim hope to the happy hunting-ground far away where the Sun goes down." To aspire to be first to proclaim the downfall of a position of refuge to which men have clung for generations, seems to display a pitiful ambition in the fool who does it, a strange ignorance of what is the true goal which the young Physician should strive to reach. Determination must be wedded to discrimination and genuine philanthropy: it must be of that quality which inspired the noble scientific martyrs of the inquisition who suffered death rather than snatch from a needy posterity

their gems of truth and philosophy.

Proceeding thus, we will surely have attained a winning and well directed ambition. Though we should be ambitious, bold and confident in approaching the bed of Surgery or Medicine, our zeal must not partake of that wild enthusiastic nature which will carry us blinded into the terrible regions of malpractice. In the field of battle we have this beautifully though sadly illustrated in the lives and unhappy end of the heroes of strife. We have this instanced in the fates of Cesar, Alexander and Napoleon: that they were blessed with the highest endowments of reason and will - none will deny and that these great geniuses were slaves and martyrs to an ill directed and unrestrainable ambition, all regret to admit.

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But we trust the Scientific Physician will not near these Scyllas or Charybdes of misfortune. If in the dawning of his medical inclinations, the mind be made acquainted with the laws governing its own intricate Philosophy and drilled into habits of Logical reasoning, taught to discard the bad and assimilate the good precepts of life and love, it will not be known of him to stray into the erratic ways and ruinous practices of the many unsuccessful. After laying the proper foundation for the study of our Profession, we must pursue it in the calmness of wisdom. Direct our aspirations to pushing to its true end the great Scientific resources at our command. "We must track the science to her fountain-head; open wide the recesses in the temple of Nature" and worship at her silent but majestic shrine.

The venerable garb of ages, rent by the missles of criticism must be laid aside; progress is now our watchword and improvement our object! The famous writings of Hippocrates and Celsus are now but rusty links in that grand chain of systematic knowledge which extends through all, from the loathsome Fungus to the consummation of his genius man.

So much then for the three chief topics to which we purpose confining our dissertation - viz

The importance of Metaphysical drill in elevating the mind to a knowledge of itself and preparing it to assimilate vital but otherwise obscure truths in the Profession,

The value of knowing the Physical Laws active in Nature and in the cure and diagnosis of disease,

The practical qualifications which we must cultivate, to justly merit the esteem of the world in life and in death - to pitch our tents on the "Campus Martius" of eternal fame

Finis!

Gentlemen of the Faculty! permit me with pleasure, to express to you my gratitude for the parental solicitude and diligent care with which you have conducted me to this period of advancement in my Medical studies. I would certainly be an alien to that great sense of duty to superiors, which should actuate all students and insensible to the emotions of filial affection, did I let pass this precious opportunity to express my thankfulness for the great kindness you have conferred upon me. Allow me therefore, to subscribe myself your earnest well-wisher and obedient humble servant

Will C Bolster.

Dec 31st 1874

An Essay
on
Digestion
Inscribed to Prof. Donaldson
By
C. J. Bales of Va.

February 1878

Digestion

The first act in the process of digestion is that of mastication by which the purposes are accomplished viz: the reduction of the food into a pulpy mass and its thorough incorporation and admixture with the secretions of the Salivary glands The Saliva is a colorless Slightly viscid and alkaline fluid with a Specific gravity of 1005 It is composed of water organic matter Sulpho cyanide of potassium phosphates of Soda lime and magnesia chlorides of Sodium and potassium The quantity of Saliva Secreted per day will vary according to varying

incumstances If the food be hard
nd dry the Secretion is very free
nd abundant- if the food be Soft
nd moist- the necessity for Saliva
is less and consequently the amount
houred forth is much Smaller
But- the average amount- has been
stimated by Dallon at- about
4 ounces and by Bidder & Schmidt-
t- about 5 1 ounces One of the uses
f the Salivary Secretion is to aid
in exciting the Sense of taste by
lissolving such ingredients of the
food as are Soluble in it- thus
enabling them to be absorbed and
to come in contact with- the ter-
minal filaments of the gustatory

nerve. Another and probably the chief purpose subserved by the Saliva is to coat the bolus of food with viscid secretion and to lubricate the parts concerned in mastication and digestion in order to facilitate these two acts. Saliva possesses the additional property of converting cooked Starch into glucose and it was formerly supposed and still is by some Physiologists to be the chief agent in transforming amylaceous articles of food into that form in which alone they are capable of being absorbed. But while it is true that not only does the Saliva have this property

but that the change begins very quickly under the proper conditions yet it is very questionable indeed whether during the brief period of time a morsel of food remains in the mouth the transformation effected in Starch by the Saliva is sufficient to deserve to be considered at all Even by those who claim that this is one of the great uses of the Salivary Secretion it is acknowledged that the objection just urged is valid but they believe that its power over Starch continues to be exerted after the food has reached the Stomach On the other hand it is asserted by such

authorities as Bernard Dalton and
thens that the presence of gastric
juice effectually arrests the action
of the Saliva Dalton found that
if equal volumes of Saliva and
gastric juice be mixed with a Sol-
ution of Starch in water both it is
: there was no reaction indicating
the presence of Sugar at the end
of five minutes and only an imp-
erfect reaction at the expiration
of half an hour But if three
volumes of gastric juice and one
volume of Saliva be added to the
Starch the mixture gives no indi-
cation of Sugar even at the end
of an hour Whence he concluded

that inasmuch as the amount
of Saliva is never in greater if as
neat proportion to the gastric juice
as one. to three no transformation
of starch into glucose is brought
about by the Saliva after deglutition.
Experiments upon dogs strengthen
the conclusion. It has been found
that when these animals were fed
upon a mixture of meat and boiled
starch no sugar existed in the
contents of the stomach at any time
starch was found for a considerable
time but even after it disappeared
there was no sugar the disappear-
ance of the starch being due not
to any chemical change but simply

to its passage into the duodenum
the food after having been subjected
to mastication and insalivation and
digested to a limited extent it
passes from the mouth to the Stomach
there meets with the gastric juice.
This secretion is the great Solvent
of albuminous mattens and it owes
this power to its acidity and to
that ingredient which is called
pepsine. The gastric juice is
always acid and very markedly
so as it always contains a free acid
It does not appear to be Satisfactorily determined even at this
day whether the acid of the gastric
juice is Lactic acid or Hydrochloric

:cid. Some authors contend that it is one and some the other Both pepsine and a free acid are indispensable factors in the digestion of nitrogenous food neither can act alone. Pepsin cannot convert albumin into peptone except in the presence of an acid liquid If the gastric juice be rendered neutral by the addition of an alkali digestion is immediately arrested though it will be resumed if the fluid be rendered acid again On the other hand albumen might lie in an acid liquid for an indefinite time and never be converted into albuminose unless pepsine be present

It is to be observed that the action of the gastric juice is not limited to the Stomach but it continues to be exercised even after the food has passed into the intestines The average quantity of the gastric juice secreted during 24 hours has been estimated at about 21 pounds Immediately after the ingestion of food the gastric mucous membrane becomes injected with arterial blood the temperature is slightly increased and the gastric juice begins to be secreted. Simultaneous with these changes the peristaltic action of the Stomach is excited by which the food is churned up carried backwards

nd forwards and intimately incorp-
rated with the gastric juice. As has
een seen the albuminoid materials
ecomes softened and converted into
eptone If any lacteous or oleaginous
ood be combined in the food
ith the nitrogenous elements the
ormer are simply set free to be
cted upon by other agents at the
roper time and in the proper
lace. After the food has been
cted upon by the gastric juice it
asses from the Stomach into the
intestines there it meets with
the pancreatic juice which plays
a very important part in chyl-
ification. Of the ingredients of this

fluid the chief one is panereatin
While the Salivary and gastric se
etions possess respectively but one
hemical property the action of the
fluid under consideration would
ppear to be at least three fold
n the first place it possesses the
hower of converting Starch into glucose
nd that too in a very marked degree
ccording to the Statements of inves-
igators who have experimented with
both fluids the power of Salivary
ecretion in this respect is very
eeble compared with that of the
hancreatic juice and the action
f the latter is not limited to
hydrated or cooked Starch as the

former is. but it extends even to the raw article In the Second place it possesses another property of equally as great importance as that referred to viz: that of converting oils and fats into an emulsion that is of reducing them to a State of the most minute Subdivision thus rendering these essential elements of food capable of being absorbed and assimilated It was formerly supposed that the bile was the chief if not the Solvent in working this change but Bernard has Shown that in the rabbit at least it was not the case and there is no reason to Suppose the case to be different

in man The pancreatic juice is
lso endowed with the additional power
f dissolving coagulated albuminous
matter. Bernard to whom we owe
so much of our knowledge of Phy-
siology was the first to discover
that this property pertained to the
pancreas and the same conclusion
as been reached by other investi-
tors though it is still denied by
me Upon the whole however
here is scarcely a doubt but that
t does possess this power and hence
in this regard it may be supple-
mental of and auxiliary to the
gastric juice, especially when the
latter agent becomes from any cause

deficient in quantity or impaired
in quality. The quantity of pancreatic
juice secreted per day is difficult
to be ascertained with accuracy it
has however been estimated at about
2 pounds a quantity immensely below
that of gastric juice but it is to
be remembered that the active organ-
ic ingredient pancreatin is present
in much greater proportion than the
corresponding element of the gastric
juice. The intestinal juice also
performs a part in digestion. The
sources of this fluid are two fold
From the glands of Brunner which
are found almost exclusively in the
upper third of the duodenum. And

also from the follicles of Lieberkuhn which exist throughout the intine of the Small intestines Brunners glands being few in number Speaking comparatively and being confined to a small section of the intestine that whatever propenty digestive or otherwise is enjoyed by the intestinal secretion is due chiefly to that portion of it which is elaborated by the follicles of Lieberkuhn However that may be the mixed fluids of both sets of glands have been found to possess two properties in common with the pancreatic juice viz: that of converting Starch into glucose and that of forming

ils into an emulsion though it
xents these powers in a much more
feeble degree than does the pancreatic
secretion
The bile is secreted by the liver
nd is conveyed to the intestines by
he ductus communis Choledochus
The amount of bile secreted dayly
s estimated by Dalton at about 2½
pounds The bile does not aid in
digestion but it is essential to
bsorpsion of the chyle and also
o the assimilation of the same It
lso prevents decomposition of the
food in the intestines and by so
doing prevents the formation of offen-
sive gasses Some Physiologists have

xperimented upon some of the lower
nimals by preventing the bile from
ntering the intestines and they found
hat the animals gradually became
maciated and eventually died of
nanition The appetite of these ani-
nals remained good during the abse-
ce of bile in the intestines and
igestion went on without absorp-
ion or assimilation

An

Inaugural Dissertation

on

Chorea.

Submitted to the Examination

of the

Faculty of Physic

of the

University of Maryland,

For the Degree of

Doctor of Medicine,

By

Le Roy C. Fowles

of

Maryland.

Session of 18-94 & 95.

Chorea.

It is usual for all who apply for the degree of Doctor of Medicine, to submit, to the Faculty of the school they represent, a Thesis or Essay on some subject connected with Physiological or Pathological action; and, in arranging the different topics for the Student's pen, my attention is directed to the Nervous System, and to the disease known as Chorea. Chorea may be said to be an irregular convulsive action of the voluntary muscles, of a Clonic kind, being but little under the influence of the will.

The History of Chorea is a sad picture of superstition. As late as the close of the fifteenth century it does not appear to have been studied by physicians, but was supposed to depend upon supernatural causes. In Germany it is said to have existed as an Epidemic; and the patients, probably some of them maniacs, were wont to join in frantic dancing, and as late as 1692 they went in procession to the church of some favorite saint of whom St. Thon, St. Guy & St. Vitus were the most reputed

(hence the name St. Vitus's Dance under which the disease is sometimes described), and as physical remedies were supposed to be unavailing in such a disorder, the Priests said masses, sung hymns and sought by such means to exorcise the foul fiend.

Symptoms.

It usually comes on gradually and is often preceded by symptoms of Gastro-Enteric derangement, such as irregular appetite, constipation &c, which are frequently accompanied with depression of spirits,

or other signs of nervous disorder. The first unusual movements are often most especially noticed in some one part of the body as the face, or hands, or shoulders; the patient muttering ludicrous grimaces, or shrugging the shoulders, or incessantly working the fingers. The irregular muscular action increases and at length the whole body more or less becomes involved. Head, trunk & extremities are in almost constant motion. The features undergo various whimsical distortions, as if the patient was endeavoring

to amuse the spectators;
and in attempting to
convey objects to his mouth
the arm is jerked about in
various & frequently directions
before it reaches the point
aimed-at. The muscles of the
mouth & fauces may parti-
-cipate in the morbid action.
Deglutition sometimes becom-
-ing difficult. The tongue is
thrust out between the lips.
Stammers or hesitates in
speaking. One side is some-
-times observed to be much
more affected than the other,
and this is usually the left.
It seldom happens that the

muscles are entirely quiescent, except during sleep, when the motions usually cease entirely, or are very much diminished. In some instances they are so severe as to interfere with sleeping. The disease is subject to exacerbations & remissions. The irregular motions are often greatly increased by any emotion, the patient being worse when conscious of being observed by others. There is generally hyperaesthesia especially along the tract of nerves, and pressure over the nerve trunks may

excite the choreic movements. There is great susceptibility to electricity & reflex excitations. There is no fever. Chorea is sometimes attended with headache. The appetite in some instances may be natural, but generally deficient or capricious.

It is a singular fact noticed by writers, that there is much less fatigue than would result were the incessant muscular actions under the direction of the will. The temper is more excitable, capricious or apprehensive than in health.

The patient often recovers without apparent cause, or is gloomy; and evinces various nervous disorders not unlike those attendant upon Hysteria, which not infrequently is associated with this disease when it attacks females about or beyond the age of puberty.

Anatomical Character.

The evidences which Anatomy afford of the nature of Choreal are almost entirely negative. In complicated cases, in which death has occurred, the Brain & Spinal-

Cord, in many instances,
after a most careful scru-
-tiny by the most skillful
pathological anatomists,
have been found healthy.
Others have observed various
lesions; such as, embolic
obstructions in the Corpus
Striatum, serous effusions
in the Meningeal cavity
of the Spinal-cord, softening
of the Brain & its membranes &c;
but these may have been
the result of complications
independent of Chorea in
their origin. However it is
obvious that Chorea must
depend upon some Organic affection
of the Brain.

Pathological Character.

It is easier to say what Chorea is not than to say what its essential nature is. It is a disease dependent upon a debilitated state of the system, which does not seem to arise from any inflammatory or hyperaemic state of any part of the great nerve centres or other organs; indeed it is hard to fix upon any particular part of the Brain in which any thing like structural lesions exist. The disease seems to be rather one of functional disturbance, than

-ent of organic change, and these views even seem to be sustained by the results of Post Mortem examinations. Some have believed it to be essentially an affection of the Spinal-cord, and that the involuntary movements were due to a reflex action of the nerve centres in that structure; but it is obvious that this view is incorrect for the following reasons. The motions are unlike those which result from Spinal irritation, as the Spasms of Tetanus, and those induced by Nux Vomica;

also the irregular movements can sometimes to a certain degree be controlled by the will, which would hardly be the case were they spinal. That they cease mostly always during sleep, and in this respect differing from the movements springing directly from the spinal cord, which do not cease during sleep. The headache which not infrequently accompanies the disease is further evidence of its cerebral location.

The part of the Brain, which is thought to be more particularly the seat of the

disturbance which gives rise to the singular phenomena, would seem to be that which is regarded as the centre of emotion; and this view is partly sustained by the frequency of the attacks of Chorea brought on by fright, which points to this part of the brain, which has such extensive connections with & control over other parts of the Nervous System. Whilst the awkwardness & exaggerated character in all the movements points to that part of the Brain

in which resides the faculty of muscular coordination, the Cerebellum; but other centres in the Brain also preside over coordination, as the Corpus Striatum, which seems to be the centre affected in Chorea. There seems to be a close connection between this disease & Rheumatism. The general character of the Urine bears a marked resemblance to that in Rheumatism. The proneness of patients of a Rheumatic constitution to attacks of Chorea; the tendency to a repetition of attacks in both diseases;

the frequency in Chorea of Endocardiac affections, so common in Rheumatic states, all point to this affinity between the two diseases.

Etiology.

An unsteady excitable state of the Nervous system constitutes a predisposition to Chorea. Such a state is apt to attend a feeble condition of the general health, hence the disease is frequently observed in individuals with disordered digestion, and defective nutrition. Age has has a great influence over

the recurrence of this disease.
It very seldom attacks young
infants or old persons, and
is most frequent between
the 6th & 15th year of age,
that is between the second
dentition & the period of puberty.
Sex seems to exert a powerful
influence, females being much
more liable to it than males;
the ratio being about three to one.
According to the observations
of some writers it rarely oc-
curs in hot climates, and
they consequently attribute
the frequent changes of
temperature in the Northern
climates as a predisposing cause;

but never-the-less it occurs more frequently in the Scrotum in the cold seasons of the year. Whatever tends to debilitate the system, and impoverish the blood, together with age & sex, may be said to act as predisposing causes. Among the exciting causes are; any emotional excitement, especially terror; over exertion of the mental faculties; irritation as the result of dentition; disordered stomach and bowels; hepatic derangement; worms; uterine diseases; suppression of the menses; Rheumatism; depraved habits, as masturbation &c.

Diagnosis.

This is not difficult. The absence of fever, coma, delirium & rigid spasm; together with the whimsical & ludicrous character of the movements, are sufficient to distinguish Chorea from other brain or spinal affections. However in some cases it may be complicated with Epilepsy, Paralysis or Hysteria &c, it being dificult to determine how much belongs to the one affection & how much to the other.

Prognosis.

Uncomplicated Chorea is very rarely fatal. Instances have occurred, however, in which the system has been worn-out by the violent and incessant agitation, in which some vital function has been arrested sufficiently to occasion death. The course of Chorea is not uniform. It may be relieved in several days or weeks, or it may run on for months or years. By proper treatment timely employed its course most undoubtedly is much shortened. Its duration

on an average under proper treatment varies from two to six weeks. A few cases will not yield to remedies and run on for years. When long continued it is thought to weaken the mental powers; and has also been accused of inducing Epilepsy, Paralysis &c. Relapses of this disease are quite common.

Treatment.

We have not in this disease any inflammatory or disorganizing process to combat, but simply to improve

the condition of the blood, amend general nutrition, calm the nerves and insinuate tone into the muscles. A great number of different remedies have been advocated by different authors as curative of this disease, and it is doubtful if any have a specific curative agency, for the affection has an intrinsical tendency to recovery; however, much benefit may be derived from judicious treatment, and the physician must exercise his

judgment in adapting the different remedies to different cases. Among the more important of these remedies are arsenic, electricity, zinc, opium, strychnia, carbonate of iron, cannabis indica, purgatives, and in severe convulsions antispasmodics. The best remedy and that in which we should place most reliance is Fowler's solution of arsenic, in gtts, three or four drop doses, gradually increased and long continued; Galvanism is also very good.

Hygienic measures are not less important than remedies. Nutritious alimentation, and exercise in the open air, are highly important.

Finis.

Respectfully submitted
to the Faculty of the
University of Maryland
By
L. R. C. Fowler.

An Inaugural Essay written upon the subject of Typhoid Fever presented to the Faculty and Regents of the University of Md. for the Degree of Doctor of Medicine by

Frederick S. Thomas of W. Va.

February 14th 1878.

Typhoid Fever:

I have selected with diffidence the subject of my Thesis Typhoid Fever. It is a febrile affection having a considerable variety of symptoms, some of which can only be recognized by close observation. In miasmatic portions of the Country, it is more or less mingled with Remittent Fever. The probabilities are that the whole human race is liable to this disease, in fact it is found according to the best information on the subject, in all inhabited regions. Under the researches of Louis the Anatomical Character with the External characteristics, gives us sufficient knowledge, to recognize the disease in every variety of aspect. It is a continued fever characterized by the rose colored spots, though various names have been suggested, viz Abdominal, Enteric Fever etc., those names are objectionable, because they are apt to convey

the impression that the fever is the result of these lesions. Typhoid Fever is distinguished from all other fevers by the intestinal character of the disease. Dr. George B. Wood claims that the intestinal affection is as characteristic of Typhoid Fever as the eruption is of Smallpox.

Symptoms and Causes. In many cases before the patient is compelled to take his bed the disease is preceded for days or weeks by indefinite premonitory symptoms which make it very difficult to determine the exact nature of the affection, Mental dulness, poor appetite, indigestion, restlessness, headache, wondering pains in the limbs, and back and repeated bleeding from the nose (Epistaxis) skin is hot face flushed and the pulse increased in frequency, tongue is coated with a whitish fur. Those symptoms continue to increase

with intensity, with daily remissions for several days or perhaps a week before the patient takes to his bed. In the majority of cases a looseness of the bowels is observed, if this is not the case a dose of cathartic medicine operates with more activity than under ordinary circumstances. Frequently pressure made on the bowels over the right Iliac region shows tenderness a slight gurgling of liquids and gas. This is observed mostly in the advanced stages of the disease. It is very rare in Typhus Fever. (The diarrhoea with the disease from 4 to 6 stools) assist in diagnosis when they take place involuntarily it adds very much to the danger of the patient. There is seldom severe pain of the bowels, except when perforation occurs but when pressure is made over the Ileo-Coecal region pains are manifested. The discharges are thin yellowish

ochre color like pea soup. when such stools
persist day after day, you may conclude at
once that there is ulceration of the bowels
and if hemorrhage takes place it will be
more certain of ulceration, Tympanites
is a constant attendant of this disease
it usually comes on about the seventh day
it increases as the disease progresses. In mild
cases it is slight and vice versa. The rose
colored eruption is said to be the most
characteristic symptom of this malady, it
consists of small red spots usually round-
ish a line in diameter slightly prom-
inent, which disappear on pressure and
return when it is removed. They gener-
ally make their appearance from the 7th
to the 14th day, or later. They appear first
on the abdomen then on the breast
their number varies. They appear in successive

crops, lasting a few days and disappear. It is maintained by some that they are occurring in a few cases, but owing to their scarcity and small character they are probably overlooked. They are sometimes confounded with petechia but when closely observed can be easily determined. Petechia is extravasated blood upon the skin and will not disappear on pressure. It is more common in Typhus than Typhoid fever; it is sometimes extensive constituting vibices. Sudamina are minute vesicles size of pin's head or even larger may be circular or oval and can not be seen in some cases without viewing them obliquely may be flat to the fingers, they appear usually on the neck and upper portion of the chest rarely in the axilla or Groins of the patient. It has been noticed by some on the whole body

except the face. They make their appearance later than the red spots. Very seldom occurring before 4th day and not so characteristic. Showing themselves in other febrile affections. Cough is very common in this affection. It is either dry, or you may have slight expectoration, with some soreness in the chest. Whenever you have crepitant rales or sub-crepitant, you will have Pneumonia complications. The nervous symptoms are very common in this disease. Headache is the most common and troublesome: dull and heavy seated in forehead and eyes. It usually lasts for a week, then gives way to stupor or delirium, and does not return when these are relieved, dulness of mind is very common showing itself in the countenance. Blank or dejected patients do not wish to be disturbed

and answer questions carelessly and irritably. This condition of things increases with the disease, until Subsultus, Stupor, or Coma supervenes; but seldom so. It is found that the patient cannot be roused by shouting in a loud tone, for there also Coma-vigil, restlessness, delirium, not increased until about the seventh day or later and is to be considered dependent on the morbid condition of the blood. The mind is wandering, the delirium in some cases very violent, in the last stages low and muttering. Bed sores are apt to occur in the last stages owing to long continued pressure from lying in one position The patient not being sensible of it and often not being able does not change his position. Sometimes there is retention of urine in consequence

of defective sensibility, and should always be looked for in protracted cases. Should guard against deception. I shall not attempt to give all the varieties and complications in this disease but for all practical purposes the symptoms set forth in the above will I hope be sufficient requirements from my hand.

I shall next pass to the Pathological character of this malady and be as brief as possible. According to some of our best Authors there is not an organ of the body but what at some times you meet with signs of inflamation but all agree & believe that the glands of Peyer are principally the seat of inflammation, it is in fact the test of the Existence of the disease. The credit I believe belongs to Louis for fixing the precise

values of the affection the fact has been demonstrated by American Physiologists. Dr. Gerhard Jackson and others. The Glands of Brunner and mesenteric are seriously Effected.

Causation of Typhoid Fever is not confined to any boundary it prevails in all parts of the world, Young persons are more liable to this disease, than old persons. It is said to be Extremely rare after fifty years of age owing to the disappearance of the Glands of Peyer. Each sex are Equally liable to this malady. From the researches of the most prominent practitioners of the present day it is beyond a doubt a Contagious disease and it appears that the poison Emanates from the Excreta or intestinal discharge. The period of incubation is said

to be about two weeks.

Diagnosis:

The slow and insidious mode of attack. Diarrhoea at the onset or soon after, dull and heavy Expression of countenance, dusky hue of the face Epistaxis, cough, and bronchial rales after seven or 9th day dryness of the tongue rose colored spots Sudamina Lymphangitis deafness Stupor or delirium. It is very difficult sometimes in the incipient Stage to determine the difference between Typhoid and Typhus fever. Some delay may be necessary to arrive at the proper conclusion. It may be confounded with Meningitis, Bronchitis, or Enteritis, but from careful observation in the most of cases the practitioner may reach a correct conclusion.

Prognosis:

Typhoid fever is considered by most Physicians a severe malady. It is considered more fatal in Hospitals than in private practice it varies at different places and periods also at different seasons in the same place. Death generally occurs from intercurrent affections, or preexisting disease. The mode of dying is by Asthenia. A notible increase in the temperature in the Axillary regions, denotes Great danger the temperature 107° or more is a fatal sign.

Treatment:

The object is when the fever is once Established is to conduct it to a favorable close. It is not safe practice to lay and cut short the disease, by Emetics or

Purgatives it would be well however to give an Emetic if the stomach is loaded with indigestable matter, or a purgative when indicated, Cold or tepid sponging when the surface is hot, is very good and should be continued if the patient derives benefit from it above all things, observe strict cleanliness, all discharges should be received in some vessel containing some disinfectant. Allow as little intercourse as possible. Persons visiting the sick room should never enter it fasting. The hair of the patient should be cut close, and if the head is hot and dry Cold applications will be beneficial, You should be Governed to some Extent by the temperature and the patients feelings. Intense headache, face flushed, and great

heat of surface from burning thirst. I would give one or two Officinal Tabloid Powders in the early stage. Veratrum Viride, Digitalis, Rushed ice when the skin is hot and dry. In the course of the disease if there is diarrhoea and tenderness over the right Iliac region with gurgling, Give Turpentine by the mouth, and apply Turpentine Stupes to the abdomen. If the diarrhoea should become Profuse Give a Dovers powder from time to time according to effect. Opium should be Given with Great circumspection. When judiciously administered it is a valuable remedy in the disease and patients would inevitably sink without it. It is always best to commence with small doses, and repeat it according to the indications presented in the

case. Hydrate of Chloral is given with Bromide of Potassium to produce sleep. Early resort to animal broths and wine when indicated and should not be overlooked in great many cases they should be given in small amounts at short intervals, Brandy seems to be the favorite stimulant. If the symptoms should not abate the tongue getting dryer, and abdominal distention remains the same I would unhesitatingly use the Oil of Turpentine in fact it may be used in all cases in advanced stages, when the tongue is dry and pulse not very strong, it acts as an alterative to the ulcerated surfaces. It should be given in doses from 10 to 20 gtts. Every hour incorporated with Gum

Arabic, sugar and water. Tonics and stimulants are absolutely essential in a great many cases. State of pulse, skin, and condition of nervous system, should guide the practitioner in the selection of the remedies and the time when they should be administered. Sometimes it is required to pursue a tentative course. Rubefacients are called for when the skin is cold with debility, temperature should be maintained by hot bricks, bottles of hot water etc., if perforation of the bowels should take place producing Peritonitis, large doses of Opium should be given as proposed by Groves and Stokes. Observe rest and discard every thing that would in any way disturb the bowels. The patients position should be changed frequently to prevent

sloughing. Bathe the prominent points with Spt. Frumenti or Equal parts of Bals. Copaiba and Castor Oil. The state of the Bladder should not be overlooked use the Catheter whenever required.

Diet:

Should be mild such as barley water milk and toast lemonade ice water may be used. Whenever symptoms of debility shows itself a more nutritious diet should be used, cup of tea. If the Stomach is irritable; Lime water and milk answers a good purpose. In the last stages Wine, milk punch, Egg nog. If the patient should be troubled with night sweats give the Aromat. Sulph. Acid and simple bitters.

Respectfully do I submit this Thesis to the Faculty of The University of Md. — Frederick S. Thomas

To

The Faculties of the

University of Maryland

A Thesis

on the Eye

The anomalies of its

accomodation and refraction

Respectfully

submitted by

Edward P. Dallam

Class - 78

Gentlemen,

In treating of the anomalies, or irregularities of accomodation and refraction, there appear among the rest, two principal imbecilities: the one, coming of Space; the other lack of imagination — a superficial knowledge of the subject understood. Lenses figure conspicuously in connection with our study. When we speak of a positive — convex — lens of 10" focal distance, it is

meant that parallel rays of light, after traversing such lens, will converge to a focus at 9" from it. In like manner, rays returning divergently from the focus, and traversing the lens, would pass out parallel. A luminous point in front of a positive lens, and its focus on the other side, are reciprocally foci, each to each. The same principle holds good with negative-concave-lenses, only their

foci are negative, or imaginary. Snellins test types are used to test the acuteness of vision, but they may also be usefully employed to ascertain the range of accomodation. The near point is ascertained by observing the nearest point at which one who is supposed to have normal vision can read a No I Snellins type. To ascertain the far point, we must use a large type, for No I would not be recognized

at a distance because of the smallness of the retinal image. No XX is generally used at 20 feet, for ~~if~~ an eye with normal acuteness will if the refraction be normal see No XX at 20 ft. as clearly as No I at one foot. If it does not, there is probably Myopia, and if it see No XX beyond 20 feet, there is good reason to suspect Hypermetropia. The eye being unable to focus parallel rays, we then test the lower numbers at

their adjacent distance until we find the smallest. But a more convenient method is that in which a strong positive glass is employed to read very small type, so that by noticing the distance at which the type is most distinctly read, we may determine whether the eye is Emmetropic, Myopic, or Hypermetropic; and then proceed to ascertain the near and far points from which the range of accom-

relation can be readily calculated. The method is explained as follows: A convex lens of 6" focus is placed before the eye (it must be stronger if it must be strong, in order that the battalion may command his far point. With the use of both eyes, the horizontal range of the field of vision is 160 degrees; the vertical, which is of equal extent whether one or both eyes be used, is 120 degrees. But it is only in the

centre of this field that the vision is clear, namely, over the space that would contain about four letters of any of Snellins types as seen from the distance at which the individual letters would subtend a visual angle of 15.00 Within this space, a normal eye should be able to distinguish two points separated by about the sixtieth part of the space itself, or by one minute of angular measurement;

and around it, vision becomes progressively more and more indistinct, as it approaches the limits of the field. The imperfection of visual power in the lateral portions of the retina, as compared with the more perfect sensitiveness of the macula lutea, is not known to most persons, for the rapid movements of the eye, by causing the macula to correspond successively in the

different parts of the field which we look at, are performed so easily and unconsciously, that we are not aware of the fact that we move the eyes at all. The blind spot measures 6° in the horizontal, and 5° in the vertical direction. The two blind spots being on either side of the object looked at, are always out of sight, and therefore out of mind. But all the misinterpretations

of the eye as an optical instrument become comparatively unimportant, in view of the physiological considerations, and the conditions under which it is exercised. For when the eye is emmetropic, and has the normal acuteness, and normal range of accommodation, the constant and harmonious movement of the two eyes keep the muscle, or sensitive part, in relation with the points successively

examined, and the slight normal Astigmatism is overlooked by looking at horizontal and vertical diameters, not simultaneously, but in alternating succession. But when the defects exceed a certain limit, they produce not only faulty, but uncomfortable (it may be painful) vision, which brings about congestion, nervous irritation, and eventually, grave organic changes. The normal Astigmatism

refered to above, depend
upon the fact that the
curvatures of the surfaces
of the eyes are exceedingly
irregular, being ellipsoidal,
and not spherical, and
the different surfaces are
not always concentric. Hence
few persons can see
horizontal and vertical
lines at the same time,
nor at the same distance
with equal clearness.
But the eye can alter its
accommodation so unconsciously,
that the person is not

aware of any change having been made. The maximum of accidental adjustment, like the maximum of muscular effort, can not be long maintained without fatigue; and hence no one could read continuously at the near point. It has been ascertained that an exertion of about one-half of the full power of accommodation, is as much as can generally be made for any lengthened period. Thus, in case of Hypermetropia,

when the focus of incident rays would be behind the retina, some effort of accommodation would be necessary for clear vision. Since this requires accurate focusing on the retina, (and of course this effort is increased when near objects are looked at) such eyes are never at rest except when asleep, and are excessively strained when looking at near objects. In hypermetropia of high degree, the accommodation is seldom used,

for if 6" be the far point, it would be seldom that one needed to look at any nearer point. Accomodation is equally necessary whether one or both eyes are used. But when both eyes are used, another muscular effort is also required, called conveyance, by means of which the axes of both eyes are directed to the object looked at, and the image of the object falls upon the yellow spot in each eye. The muscular effort

of the internal Recti, and the visual angle of convergence increases as the distance decreases. So that in looking at very near objects, the strain on the internal Recti becomes very uncomfortable; and hence hypothetic persons are very liable to muscular Asthenopia. Thus the accomodation of the Ciliary muscle, and the converging action of the internal Recti, are excited under similar conditions, namely, whenever we shorten the range

of vision. And thus, although they are independent actions, they are so habitually associated that we can not without optical contrivances, exert one without the other. When by means of glasses we succeed in breaking the harmony of the muscles, the result is uncomfortable or painful vision. Thus, if a person with Emmetropic eyes uses convex glasses of any given focus, (say 18") he can see most distinctly at that

distance, but after a short time the eye will ache, because the glass having reached the divergent rays parallel, he relaxes his accommodation while the eyes still converge for 18" distance. He would experience a similar discomfort in looking at distant objects with concave glasses of a definite focal distance, (say 18") for concave glasses giving parallel rays a degree of divergency due to their focal distance, he would have to accomodate

for that distance, while no convergent convergence is needed. Convergence in the absence of accommodation, and accomodation in the absence of convergence, are equally uncomfortable. A pair of prisms, each of seven and a half degrees angular measurement, placed with their bases inward before the convex lens, or with bases outward before the concave lens, will remove all inconvenience. In the former case they

make the parallel of convergent visual axes to correspond with the relaxed accomodation. In the latter, they make the parallel lines converge to a point corresponding with the imaginary focus of the negative lens, and therefore with the effort of accomodation. In the former they relax muscular action; in the latter they call it into play, but in both, the discomfort and fatigue resulting from the disarrangement of the

natural harmony between the accommodation and convergence, are relieved. Excessive nervous and muscular effort produce retro hyperæmia, followed by passive congestion, and mental anxiety often aids these physical changes in sowing the seeds of disease. The power then to overcome the effects of moderate hypermetropia, or astigmatism, will depend upon your general muscular vigor.

An
Inaugural Dissertation
on
Indigestion

Submitted to the Examination
of the
Faculty
of the
Maryland University.
For the Degree of
Doctor of Medicine
By
— Frank W. Lewis —
of
Virginia —
February 14th
1878

- Indigestion -

The occurrence of this affection is so frequent, and attended with so distressing a train of symptoms, that it has the strongest claims upon the attention and sympathy of the Physician. The habitual dyspeptic is indeed truly miserable, His sallow and anxious countenance, his irritable and sullen taciturnity, his aversion to social enjoyments, and the occasional overwhelming despondency

of mind, show him to
be the prey of deep and
harrassing sufferings.
of which none but those
who have experienced them,
can form any adequate
idea. Common however
as Indigestion is, and
serious as are its conse=
quences upon the health
and happiness of man,
there is perhaps hardly
any other malady,
which man is heir to,
that is so commonly
misunderstood and
consequently so commonly

Mismanaged, I may state in the outset of this Thesis, that in order to obtain a correct view of the pathology of indigestion, and of the true indications of its remediate management, it is necessary to be acquainted with the physiology & of the pro-cess of digestion, and I can only in this short paper, refer to the prominent and essential circumstances in relation to the Subject.

It appears then to me.

That the following conditions are essential to the regular and healthy performance of the function of digestion.
1st A due tone and peristaltic action of the muscular coats of the Stomach, in order that the food may be uniformly acted upon by the parietes of this organ, and as it successively undergoes Chymification - when it is in contact with the Stomach - be pushed

forwards towards the pylorus into the duodenum, and 2nd The regular secretion of a sufficient quantity of healthy gastric juice. That the gastric juice is really the solvent which converts the aliment into that pultaceous mass called Chyme, and that therefore digestion so far as Chymification is concerned, is chiefly effected by the agency of this fluid, is I think established beyond all dispute.

The Experiments of Spallanzani and others have placed this physiological fact beyond all reasonable doubt. It does not appear from experiments on this subject, that the bile has any material agency in the process of Chymification. According to Experiments performed by the Author above named, in relation to this point, Chymification appears to go on perfectly in animals after the biliary duct has been tied.

It has been assumed as a pathological axiom, that the functions of secretion can never be deranged without the existance of irritation in the secreting organ. Irritation of vascular extremities that secrete the gastric fluid, exists therefore in every case of dyspepsia or indigestion. The causes which most frequently give rise to this irritation, are over-distension of the Stomach and indigestible and irritating articles of food,

The manner in which food of this kind produces the irritation in question, may be readily understood. When food resists the digestive powers too long, besides direct irritating impressions upon the Stomach, it enters more or less into the fermentative process and evolves acidity and gas, which increases the irritating qualities of the contents of the Stomach. Besides these consequences of too long a retention of imperfectly digested

food into the stomach,
the muscular powers
of this organ will
be diminished by the
long continued exercise,
to which it is subjected,
as well as, by the
overdistension and
irritation caused by
the gases. In consequence of
this indigestion, portions of
half digested food will
pass into the duodenum
which being altogether
uncongenial to the
sensibility of this
organ, will give
rise in it to irritation,

spasm and pain,
and thro' sympathy
to functional derangement
of the Liver, When this
state of things is produced,
by some error in diet,
or whatever cause may
be, assisted perhaps by
general causes — Even
the ordinary digest-
ible and plain
diet taken in health,
will not only sustain
it, but increase its
violence, if favored
by other circumstances
of a debilitating
Character,

Protracted grief and despondency seldom fail to weaken the digestive powers, and to bring on ultimately, confirmed and unyielding indigestion. Protracted and intense application of the mind, when attended with a sedentary mode of life, is another of these causes which act thro' the medium of the general system. Such indeed are the Sympathetic relations of the Stomach with the

whole and every part of
the human organism,
that its functions become
disturbed by whatever Cause,
either General debility or
organic disorder of the
principal organs of the body.
But it is now conceded
that by far the most Common
and powerful causes of in-
digestion, are those that
act directly upon the nervous
Extremities of the mucous mem-
brane of the Stomach, Whatever
it calculated to cause per-
manent irritation of this
membrane, has a direct
tendency to produce this disease.

The principle agency of the Bile in digestion, seems to be, to render the fatty substances of the Chyme Soluable in the Chyle and it is said to be, the fat or oil thus suspended, by means of the alkaline properties of the bile, that gives to Chyle its milky color, when the common duct is tied, Chymification goes on regularly, but the Chyle in the Lacteals and thoracic duct is transparent and of a yellowish hue.

It has been stated that the immediate cause of Indigestion: Consists in a vitiated condition of the Gastric juices and deficient or irregular action of the muscular coats of the Stom=-ach, now as both muscular action and secretions are under the influence of the nervous power, it is plain that, whatever causes an irritation or morbid excitement in the ner=vous structure of this organ, must necessarily tend to derange the healthy

performance of these two functions, accordingly every thing which is capable of causing indigestion, does so either by irritating the regular supply of nervous influence to the stomach, or by irritating the nervous extremities of the mucous membrane of this organ; or by producing both these effects simultaneously.

Of the former causes, namely, those that interfere with the regular transmission of nervous influence

to the Stomach, are the
mental Emotions. It is
surprising, how suddenly
any Temporary mental agi-
tation destroys, may, often
wholly suspend for a time,
the keenest appetite and
powers of digestion. These
temporary depressions of appe-
tite and powers of digestion
from sudden Emotions
of the mind, may be
converted into protracted
and unmanageable
cases of dyspepsia, while
the mental perturbances are
of a Chronic & depressing Character.

Some Authors think, eating too much, is one of the most common Causes of dyspepsia, and there can be no doubt as to its decided tendency in this way. It is probable, however, that it is not so much by an overdistension of the muscular Coats of the Stomach, which a super abundance of ingesta produces, that indigestion is caused, as by the mere excess of food beyond which the Stomach is Capable of digesting.

Suppose the utmost powers
of the Stomach be capable
of digesting 16 ounces of
food at a time, it is
manifest if 20 ounces
be taken, some of it
will remain in an
undigested state in
the Stomach, a longer
time than is compatible
with a healthy condition
of that organ, this portion
will therefore irritate
the gastric nerves, enter
more or less into a state
of decomposition, and
give rise to deficient

vitiated secretions
in the Stomach, as
well as, debility of its
muscular tunic.
The effects which follow,
an undue reception of
food into the Stomach,
beside those of mere
over-distension, do not
differ from those that
are caused by indiges-
tible articles of diet
a small portion of food
which resists the diges-
tive powers, is capable
of bringing on violent
dispepsia, by remaining

In the Stomach beyond the period which is allot-ed by nature to the proces of digestion, and becom-ing thereby a source of irritation in the manner already mentioned. Just so does it happen when the portion of food how-ever digestible, is greater than the Stomach is capable of digesting at a time, for the portion which remains in an undigested state, and which the Stomach is no longer capable of

Converting into Chyme, will act like so much indigestible food, and give rise to the distressing consequences which often result from such articles of diet. The Causes which most commonly occasion the reception of more aliment into the Stomach than its powers are capable of converting into Chyme, are 1st. Eating too fast. The appetite subsides only in proportion as the gastric juice

Becomes mixed, and as it were neutralized by the food. When we Eat rapidly, time is not given to the Gastric liquor to combine with that part of the food which is presented to it; the sensation of hunger therefore continues, and we continue to Eat, Eaten, until more food is taken than the greatest quantity of gastric juice, the Stomach is capable of secreting, can digest, and imperfect

Chymification is the result, whereas, when we Eat slowly, so that proper time is given for the combination to take place, the Appetite abates before the Stomach is over-charged. Every one has occasionly observed, that if his meal is interrupted for ten or fifteen minutes after having eaten perhaps not one third of the usual quantity, he finds that he is Satisfied.

the gastric juice has had time to combine with and be neutralized by the food he has taken. 2nd Imperfect mastication acts in the same way, and as it is always connected with rapid Eating, constitutes greatly to this latter cause. 3rd The use of Condiments, Stimulating drinks and high seasoned food. These excite an artificial appetite, and keep up the desire for food, longer

than it would be sustained by the impressions simply of the gastric fluid. The free use of very cold or warm drinks, particularly during meals, tends much to weaken the digestion, and to aid other causes in the production of dyspepsia. By drinking freely, the gastric fluid is so much diluted that its powers are weakened, and of course the process of digestion

more or less retarded.
We have stated above
that a tardy peristaltic
action of the muscular
coat of the Stomach,
by which the digested
portions of food are
too long retained in this
organ, is very often
the cause of dyspep-
tic symtoms. We are
however persuaded,
that the reverse condi-
tion also very frequently
obtains in cases of
painful and imperfect
digestion - Namely, that

the food is too rapidly hurried thro' the Stomach into the Duodenum, before it has had time to undergo the full action of the Gastric fluid. This occurs most commonly in such cases as are attended with a high State of irritation, or a sub-inflammatory condition of the mucous membrane of the Primae Viae.

That a morbid peristaltic activity of the Stomach often Exists in

Dyspepsia, may be in=
ferred from the conse=
quences which are
known to result from
high irritation of the
mucous membrane of
the intestinal tube.
The phenomena of Indi=
gestion in aggravated
cases, also confirms
the correctness of this
opinion. Authors tell
us it is a common
circumstance, for ~~ins~~
instance, to hear dys=
peptics complain of a
sense of fullness in the

Stomach after eating a small quantity of food. But not withstanding this sense of repletion, they soon complain again of the customary sense of Emptiness in the region of the Stomach, and crave for more food, In such cases, it is to be observed, that the chief distress or uneasiness is not experienced in the Stomach, but rather in the region of the duodenum.

In some cases the food is rapidly hurried off by the bowels in an imperfectly digested condition, under very severe suffering from tormina and flatulent distention of the bowels, In a practical point of view, it is of great importance then to bear in mind, that dyspepsia may depend on the distinct morbid condition of the digestive organs; Namely 1st. In functional debility of the Stomach from

Deficient or vitiated secretions of the gastric fluids, and muscular inactivity, independent of vascular irritation or inflammation. 2nd Or deficient or vitiated secretions of the gastric fluids, with vascular irritation or Chronic inflammation of the mucous membrane of the Stomach and duodenum, and a morbidly increased peristaltic action of these organs. —

The Characteristic symptoms of the former grade of indigestion, are poor appetite, tongue covered with white fur; absence of epigastric tenderness, Except in flatulent distentions: Costiveness; acid eructations: absence of febrile irritation of the pulse and the ability of bearing lean and tender animal food, better than vegetable and farinaceous articles of diet. The phenomena which Characterizes

The second or inflam=
matory grade of the
disease, are tenderness
on pressure of the Epi=
gastricum, a red, chap=
ped, glassy appearance
of the tongue, small
and accelerated pulse
and febrile exacerbations
towards evening, emaci=
ation; irregular action
of the bowels, with
frequent attacks of diar=
rhoea; protracted pain
during the process of
digestion, anxious Expres=
sion of the Countenance

And inability to bear animal food and stimulants. It appears that the irritation or inflammation of such cases is seated in the mucous membrane of the pyloric extremity of the Stomach and the duodenum, connected with a congested state of the Liver, the left lobe of which organ is most commonly affected in indigestion.

In the treatment of this disease (as in most other)

The first and by far the most important indication is the removal of the causes, and the measures requisite for this end, Embrace the regulation of diet, moral as well as physical. The most obvious rule in relation to diet, is to avoid all substances of difficult digestion. Specifications in the treatment of this disease are only correct in General, for the peculiarities of individual Stomachs

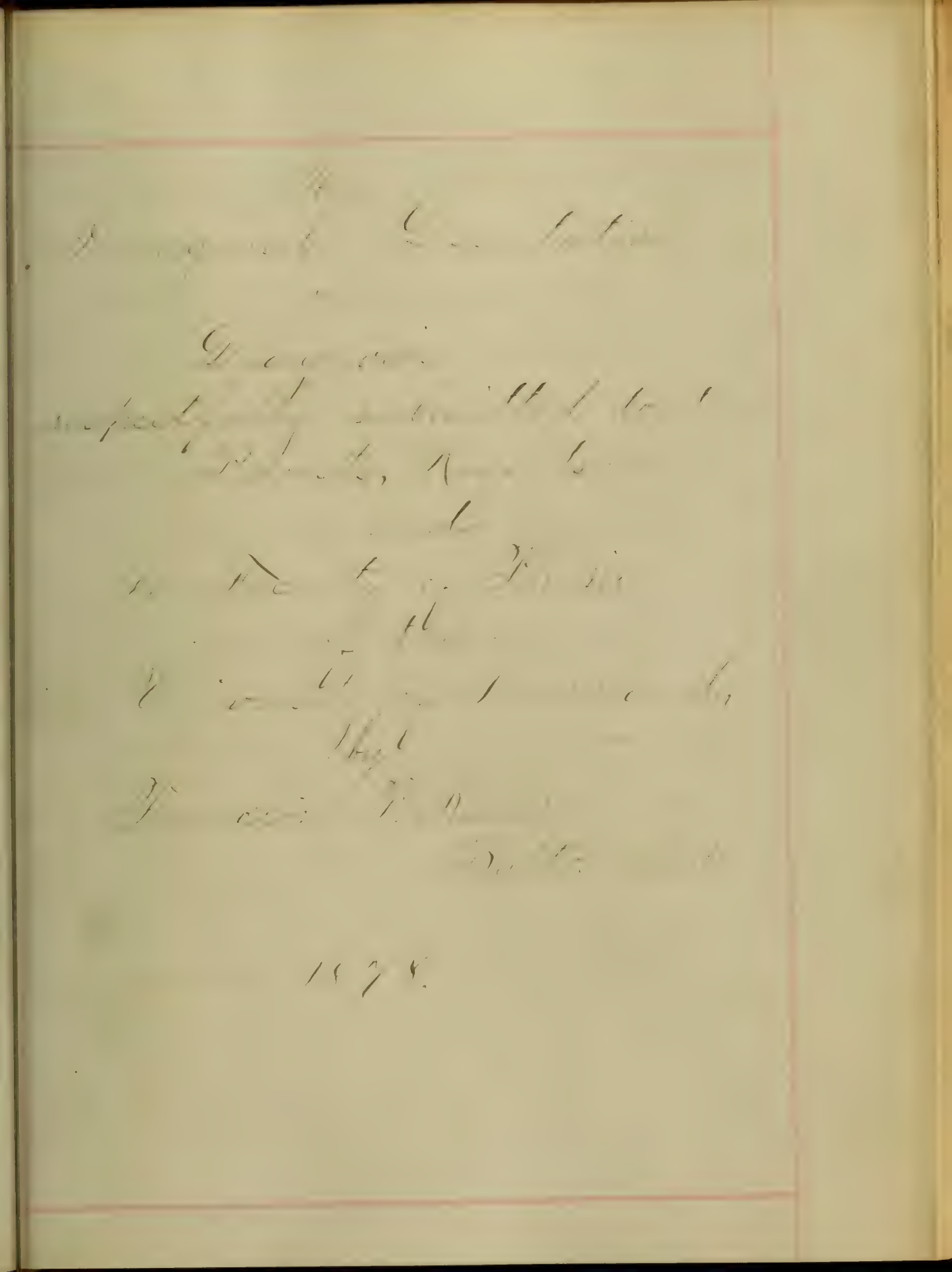
are so numerous, that an article easily digested by one, will often prove almost indigestible by another, and vice versa. In all cases of dyspepsia an undeviating observance of suitable regulations in regard both to quantity and quality of the aliment and the manner of taking it, is absolutely indispensible to success in the treatment of this disease. The patient should be directed to masticate well and slowly;

To take his meals at regular hours; to Eat no more at a time than is just sufficient to sustain the power of the system; to drink but little during and for a short time after taking food, and avoid taking any active exercise during the first stage of the process of digestion.

Respectfully submitted to the Faculty of the University of Maryland, By

Frank M. Lewis.

— of Virginia —



physiology, pathology
without a thorough

[illegible]

[illegible]

[illegible]

diagnosis is one of the two essentials of practice. I believe that which cannot be controverted; therefore, were I asked what should particularly engage the attention of the [illegible], I would reply that he should assiduously endeavor to perfect himself in [illegible] of disease and of the [illegible] and conscientiously [illegible] [illegible] [illegible] studious [illegible] investigation of [illegible] and every branch of medicine. However scientific he may be, howsoever quality his powers

[illegible] to be
an eminent diagnostician he must
be a good [illegible]; the science of
[illegible]
memory, anyone by bad reasoning
will arrive at [illegible] perfect diag-
nosis. Neither should one imagine
that diseases are to be recognized by
an intuitive preception, although
there are by no [illegible]
[illegible], and [illegible]
[illegible] the list;
but such an idea is absurd when
we reflect that there is nothing
utopian in the practice of medi-
cine. Indeed the mental quali-
fications of the skillful diagnos-
tician do not differ essentially from

[illegible]

[illegible]

[illegible] is well calculated to impress [illegible] hearers, so is the doctor of med[illegible] able rationally to treat phys[illegible]cal. [illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

the insatiate ambition to advance [illegible] not supplant the humane desire to relieve those by whom we are [illegible]

[illegible] having the mortality in the

is [illegible]
[illegible] methods of examination, that
[illegible]
[illegible] contrivances for assistance in diagnosticating disease. The hasty formation of such an opinion is plainly perceptible when we banish all prejudice and calmly consider the objection. It seems to [illegible] that such an opinion appears to some to be tenable, on account of its seeming analogy to that held [illegible] complicated and [illegible] [illegible]gical instruments. Such an argument is devoid of perspicuity, to say the least; the foundation on which it is based is insecure; the [illegible]alogy does not exist. Were this

[illegible] of [illegible]
[illegible]
[illegible]
[illegible] methods of [illegible]
[illegible]. The [illegible]
[illegible] must be able to adapt each
step of [illegible] proceedings to the peculiarities of the case in hand. He
must use tools that will do his bidding
[illegible] first to last. [illegible]
[illegible] the simple [illegible]
the most [illegible]
[illegible]
an [illegible] sharpened finger.
Each [illegible] instrument, however great the ingenuity displayed
[illegible] contrivance, should be shunned
[illegible]

[illegible]

[illegible] exists in the man and not [illegible] instrument. By using automatic instruments, the operator [illegible] important axiom, assumes [illegible] assistant. This [illegible] by the [illegible] that those, who have invented the [illegible] automatic instruments, after having fairly [illegible] them, [illegible] them. It affords me pleasure to remember that this is entirely different [illegible] ments used in diagnosis, in the employment of which accuracy is

[illegible] at and [illegible] obtained.
[illegible] the [illegible] we [illegible] [illegible]
the use of the [illegible] [illegible]
[illegible] we substitute the accurate
[illegible] of [illegible] for the inaccurate sense
of touch. An aphorism exists to this
effect, [illegible] [illegible] [illegible]
[illegible] [illegible] [illegible] of two [illegible]
[illegible] [illegible] [illegible]
the important part which our
sense of touch should take in an
[illegible] [illegible] [illegible]
[illegible] [illegible] [illegible] [illegible]
This instrument is extremely use-
[illegible] [illegible] [illegible] [illegible]
[illegible] [illegible] [illegible] [illegible]
[illegible]. In fact [illegible] [illegible] the o-
[illegible] [illegible] [illegible] [illegible]

An Inaugural Dissertation

on Pneumonia

Submitted to the worthy

Faculty of Physic of the

University of Maryland

for the degree of Doctor of

Medicine

Joseph H. Parrish

Definition, Inflammation of the Substance of the lung.

Varieties: Acute, Subacute and Chronic.

Symptoms and Course. The first onset of Pneumonia, which attracts the attention of the patient, is a chill, or stage of depression, followed even by fever, with oppression in breathing, dull pain in the chest and sometimes short cough. Delirium is common. Temperature of body is high, especially on fourth or fifth day, sometimes in the evening reaching 104° or 102° Fahr. in the axilla. Secretions scanty, as in other febrile

affections [illegible]
of Urea but deficient in the Chlorides.
In the middle period of the attack. E
pectoration commences about the 3d or 4th
day. The sputa being composed of mucus,
lymph and blood mixed together with
ing the rusty colored sputa of Pneumonia.
In this an excess of Chlorides of Sodium
will be found by testing with nitrate of
Silver. The height of the attack is gen
erally reached between the 3d and 4th days
after which the temperature falls and in
favorable cases all the symptoms subside.
In others oppression in breathing and
prostration, increase cough, dyspnea, and expect
oration becomes more abundant at last

cluding Clinical History.

Engorgement. 2nd Stage. Red

division of the career of Acute Pneu-

monia into Stages, is based upon differ-

ences as regards its anatomical char-

acters at different periods of the disease

the 1st stage comprises the period dur-

ing which the affected lobe is in a

state of active congestion or Engorgement

the disease is considered as passed

into 2nd Stage, when the affected

lobe, or a greater part of it, has be-

[illegible]

[illegible] stage [illegible]

fication or hetratization. In the 3d stage, the affected lobe is in one of [illegible] conditions. If the disease pursues a favorable course, the 3d stage begins when it is evident that the absorption of the exuded matter is going on, and convalescence takes place during this period. This may be called the stage of [illegible]. If the disease pursues an unfavorable course, the 3d stage is one of suppuration or infiltration, and this stage may be called the purulent or suppurative stage. If this state of things exists, the disease generally ends fatally.

The duration of each of these stages varies much in different cases. The stage of engorgement may last but for a few hours not unfrequently. This stage does not extend over 24 hours. But sometimes the solidification occupies two, three or, days. and in some cases it occupies a longer period, the average duration might be said to last from 24 to 48 hours The stage of solidification may also be of short duration. In the majority of cases this stage lasts from 2 to 4 days. The stage of resolution is still more variable It is very rarely the case. that the resolution is completed in less than 3 or 4 days and [illegible]

recovery. Many days are require
the normal condition of the lungs
restored. In the great majority
Acute Pneumonia commences with a chill
The Thermometer at this period shows
increase of temperature although
exists as a subjective symptom.
vasion is usually abrupt with few or n
premonitions. The attack is at
during the night. Coincident with or
immediately following the chill is the
occurrence of pain. The pain is usually
felt in a circumscribed space at or near

less prominent. The cough
accompanied by expectoration
movement occurs with the invasion
gether with
The pulse runs much in
different cases, ranging
per minute. more or less hard and full. A
sudden increase of temperature denotes the

[illegible]

[illegible]

[illegible]

portion of lung affected. [illegible]

vary in different stages. During the

stage of solidification, the symptoms un-

dergo some changes. Pain if it has not

cease or diminish. Cough and expector-

ation continue, but the cough is less hard

and painful, and the expectoration is

affected with more facility. The matter

expectorated loses its rusty appearance,

becomes opake, less adhesive and more

abundent. It is derived principally from

the Bronchial mucous membrane of the

lung affected. The febrile movement continues.

[illegible]

[illegible] is [illegible]

Venous congestion [illegible]

tion of blood in the right cavities of

heart. Albumen in abundance in the

Urine, denotes coexisting disease. ---

Delirium not unfrequently occurs in [illegible]

Pneumonia. It may be mild in its character, but sometimes very active. The patient attempting to get out of bed, resisting all efforts of restraint, or it may be of a low muttering form, such as frequently occurs in Typhoid fever. It is evidence of the gravity of disease in proportion as to its prominence, that is, active and persisting. A circumscribed redness of [illegible]

[illegible] cheeks is frequently [illegible]
[illegible]
[illegible] monia. It is not uncommon for
an herpetic eruption to appear upon
the face especially around the mouth.
Slight jaundice is sometimes present
but can be considered as of no moment.
The supervention of certain symptoms
is expressed by the term Typhoid Pneu-
monia. This term denotes the general
symptoms, relating to those of Typhoid
Fever of which the most prominent
is low muttering delirium. A notable
decrease of the temperature, sometimes
precedes the fall of the pulse and [illegible]
prominent in other symptoms. and the

[illegible]

[illegible]

able course. is usually [illegible]

Physical signs. These differ in the three stages. In the 1st stage. they are moderate dulness on percussion over the affected lobe and on auscultation after the 1st day or two, the fine crepitant rale. In the 2nd stage. decided dulness on percussion. no rale but in its stead bronchial respiration and [illegible] with increased vocal fremitus. In the stage of softening or suppuration infiltration or 3d stage. dulness on percussion and coarse crepitant or mucous rale. When resolution follows the 2nd stage is

[illegible] of recovery, the bronchial [illegible] gives rise to the crepitation and then the dulness of resonance on percussion also gradually disappear.

Pathological Characters. Lute Pneumonia in an inflammation, affecting a structure reckoned as a mucous tissue, but differing materially, from the membrane lining the bronchial tubes in respect to composition and function. The exudation in this inflammation does not produce new tissues and a[illegible] as in Pleurisy, which is not expectorated but removed by absorbtion, and sometimes absorbed with g[illegible] rapidity. The exudation in Pneumonia

[illegible]

[illegible] pulmonary

[illegible] lung. (Causation). – Statistics shows that no period of life, involves either exemption from, or a notable proclivity to Acute Pneumonia. It occurs under 2 years of age, but not frequently. Also at 60 yrs and above it. No particular calling predisposes to this disease, but outdoor laborers are more prone to become affected indoor laborers. Such as are exposed to [illegible]

[illegible]

influences pertaining to other Pulmonary affections. Facts show that Bronchitis does not tend to eventuate [illegible] Pneumonia

Pulmonary Affections, Emphysema, Asthma.
Chronic Bronchitis are frequently associated with Pneumonitis, as to show that instead of investing a predisposition to this disease, they afford more or less protection against it. Pneumonia is not often developed in persons affected with organic affections of the heart. In a large proportion of cases of Pneumonia the disease is developed, spontaneously, that is it is not traceable to any exciting agency. The disease may be produced artificially by injuries inflicted on the chest.

Diagnosis.— The only affections with

Pleurisy, Bronchitis and Phthisis.

From Pleurisy it is known by the absence of the sharp pain, and by the crepitant rale, and rusty colored sputa. From Bronchitis, by the dulness on percussion, bronchial respiration and bronchophony. From Phthisis, by its sudden onset, fine crepitation and sputa as well as by the acute violence of the attack.

Prognosis. Simple Pneumonia of one lung in a young and previously healthy person, ought under favorable circumstances, and judicious treatment, always to be recovered from. Even if more than one lobe be in-

[illegible] provided the disease be [illegible]
and uncomplicated, a favorable ter-
mination may be expected in a subject not
enfeebled by age. The gravity and da-
ger in this disease, consists, not so
much in the disease per se as from co-
existing affections. Occurring in person
affected with organic disease of the heart.
It is apt to prove fatal, or at least a serious
affection. In the aged it is [illegible]
and double pneumonia is so, at all periods
of life. though good recoveries do occur.
There is a liability in this disease to
a fatal accident, viz. the coagulation
of fibrin (Hyperinosis) in the right cavities
of the heart. This is no doubt an ev-

[illegible] occurrence [illegible]
[illegible]. The complications which
are apt to render the disease fatal are
Pericarditis, Intermittent fever, and De-
lerium Tremens. The gravity and dan-
ger from these complications are of
course greater if the disease invades,
more than one lobe. Symptoms which
are unfavorable as to Prognosis are the
following; the abundant purulent
expectoration, frequency of pulse, great
frequency and labor of respiration, lividity
of the face, body, dark colored sputa, com-
monly known as the prune juice expecto-
ration, active delerium, low muttering
delerium with prostration, and subsultus

[illegible] [illegible] [illegible] [illegible]

admitting that they sometimes succeed

the probability of success is so small as

not to warrant their employment in all cases

As regards bloodletting, its employment is

to be regulated by the consideration of the

different cases with which [illegible]

in contact. The circumstances which

warrant its employment are, high febrile

movement, the pulse more or less resisting

compression, and the condition of plethora

or at least a robust constitution. It is

traindicated whenever the febrile movement

is not marked, when the pulse

is frequent and weak, or if the patient

[illegible] a feeble constitution.

[illegible]

[illegible]

under similar circumstances, but its effects must be watched. Aconite is an effective sedative remedy, and is to be preferred to the sedatives just named, whenever it is desirable to avoid the depressing effects of the [illegible]. [illegible] may be given during the 1st stage of [illegible] in doses sufficient to relieve pain and tranquillize the system. Blisters are injudicious, but dry cups, sinapisms, and stimulating liniments may be employed. Some recommend cold applications to the chest. But this measure must be used with great care. If patients complain of the

[illegible]

Later on in the disease, measures must be used to promote absorption, and support the powers of the system. The oiled muslin jacket has been employed by [illegible] and with advantage. Tinc. Iodine has been employed as an application to the chest. Opium can be used in this the 2nd stage as well as in the 1st [illegible] indicated not only for the relief of pain but from the restlessness and symptoms [illegible] disturbance [illegible] [illegible] in the [illegible] contraindicates the use of opium in full doses. Sedative measures, such as Veratrum Viride & Aconite Tr. are admissible in this

[illegible]

[illegible]

[illegible]

[illegible]

Resolution will be sure to begin and con-
tinue if the life of the patient be suffi-
ciently prolonged. The danger is not
[illegible]
[illegible]
[illegible]
[illegible]
[illegible]
[illegible]
[illegible]
[illegible]
[illegible]

[illegible]

[illegible]

[illegible]

small doses, the effect is [illegible]

and the quantity increased in proportion

to the urgency of the [illegible]

gravity of the disease.

Stimulation is an essential part of

the treatment of Pneumonia.

It is as important to nourish patients

affected with Pneumonia as those af-

fected with fever, or any disease where

ever there is danger from the failure

of the vital powers.

Milk and farinaceous substances [illegible]

[illegible] broths, should form the diet

A Thesis
on
Typhoid Fever.
by
J. H. Love.
W. Va.
A. D. 1878.

Typhoid Fever.

The name typhoid signifies typhus like, and is objected to by a great many authors, the cause being the confusion it creates; for it is customary to many, to apply this name to a condition or state which is incidental to many diseases. For this reason it is called by the German writers abdominal typhus and by Prof Geo B. Wood enteric fever. But Murchison objects to these, because they are apt to convey the impression that the fever is the result of these lesions and

proposes the name pythogenic fever, which name implies the supposed source of the disease to be putrescent matter. But still this is objected to on the ground that his doctrine is hypothetical.

As to the contagiousness of this disease it is doubted by some physicians; but I hope not by the majority. It certainly is more contagious in the rural districts than in the cities, the principal reasons being the hygienic advantages the latter have over the former, the most paticular ones and undoubtedly of great importance are the

water supply, water closets, waste pipes, and the great sewers to convey all effete material immediately from the house and out of the city. In the rural districts they have nothing of the kind. There they depend upon wells and springs for their water supply. They have no waste pipes nor sewers to convey all waste material away from the houses, consequently they are compelled to use common privies for the place of deposit, and it is common to see both well and privy in the same yard. Knowing that this is true it can easily be understood

how the water can become
infected with poison from this
or any other disease, and spread
itself over a whole neiborhood
maybe visiting every family.
Milk is another source by
which this poison is often spread
and should be watched with
great care. It is supposed to be
caused by the cows drinking
water or slops that are infected
with the poison. Statistics show
that the majority of epidemics
are spread in this way, for it is
to be remembered that the con-
tagious power of this disease
belongs cheifly and especially to
the discharges from the bowles

caused principally by the ulceration of the intestinal glands so characteristic of typhoid fever. So dangerous are these discharges that the best possible care should be taken of them, disinfectants must be freely used before they are taken out of the sick room.

Mr Hartshorne says "No locality limits it, all climates allow it, from the Artic regions to those bordering on the tropical, from the cities of the east, to the Rocky Mountains. From all this we are made to belive that typhoid fever originates from some specific poison.

So imperceptible is the commence

ment of this disease that patients are unable to fix an exact date of their ailments, sometimes they are not sick enough to take to bed for some days or may be two weeks, again in exceptional cases the attack is abrupt, the patients taking to bed at once, with a chill, vomiting, purging and great prostration.

Among the earliest and most important symptoms are chills or chilly sensations, followed sometimes by perspiration, frontal headache, pain in the back and limbs, noise in the ears, loss of appetite, and progressive debility. Epistaxis and Diarrhea are two diagnostic

points in typhoid fever.
The countenance and general aspect of the patient requires a passing notice at this time. The face is usally more or less flushed in the early period. afterwards the countenance presents a dull or listless expression; and in severe cases there is a lack of any natural expression, and there is also an appearance of stupidity. This corresponds to the gravity of the case. The nervous symptoms is very important and should be watched with great care, during the first week or ten days. Pain in the head is complained of, not sharp and stinging, but dull and

continuous, gradually becoming less and less and finally ceases during the last of the second or the begining of the third week. The patients sleep is dozing and disturbed with startling dreams. His respirations are sighing and spasmotic and at last delerium presents itself, about the second or third week. This differs in degree of severity and is usually worse at night. At first it may be slight, the patient muttering or talking incoherently, at other times it is very violent, the patient if not watched will often get up, put on his clothes

and roam around. "This persisting active delirium requiring restraint is an extremely unfavorable symptom."

The tongue generally presents a morbid appearance and is always a valuable sign both in regard to the prognosis and treatment. At first it may be simply frosted or covered with a thick whitish, yellowish or brownish coating, or in further advanced cases it varies in appearance, it may become reddened, smooth, glazed, or hard and dry, called by some the brick tongue. This later shows itself very

prominently in the very severe cases, when the patient lies in the state of coma-vigil, breathing with his mouth open. The surface is desiccated, cracked and often deeply fissured. Exfoliation of its coating and its surface becoming moist and of a natural color, betokens convalescence."

The characteristic eruption appears generally from the sixth to the twelfth day. It consists of small round rose colored papules, slightly elevated and disappear completely on pressure, resuming their natural appearance when the

pressure is removed. It first
appears on the thorax the
abdomen and the back, some-
times on the limbs but rarely
or never on the face, each spot
lasts from three to four days;
while fresh ones come out
every day, until about the last
of the second week, when they
disappear altogether, leaving
no pit or scar behind them.
Very often it cannot be discover
ed during the attack and is
never present after death.
Dr Watson says "This eruption
of lenticular spots, in successive
crops, is highly diagnostic of
typhoid fever."

The temperature is a very important item in the diagnosis of this disease and should be carefully watched. It begins to rise about noon, and attains its maximum between that and midnight. After this time it commences to fall, the lowest point being usually attained between six and eight in the morning. In uncomplicated cases these daily remissions are almost invariable, the difference between the morning and the evening temperature varying from one to two or three degrees. The rise begins from the first day of illness,

and gradually increases by daily waves, until, on the fourth or fifth day, or about the end of the first week, when it attains its greatest elevation, which varies in different cases, between 104 & 106 degrees. From this period up to about the twelfth day, there is but little change. Then if the case be mild, the morning temperature becomes lower and of longer duration, to be followed shortly by corresponding falls in the evening, and as gradually, as convalescence becomes established the morning and evening temperatures approximate and it

come normal. If the case be severe and convalescence be delayed, the temperature still continues high, and the morning remissions become often less marked than they had been. Again if in the course of the attack serious complications arise, the usual course of the thermal variations is modified. Profuse diarrhœa, epistaxis or intestinal hemorrhage, causes the temperature to fall; as also does the condition of collapse. Pneumonia causes it to rise, and modifies its diurnal variations. Sometimes it arises before death to 108 or even to 110 degrees,

independently of complications.
It is difficult to fix the exact duration of this disease on account of its insidious mode of onset, the presence of complications and the liability to relapse, but the average duration is generally put down from twenty to thirty days.
The prognosis should always be guarded, even in the mildest cases, and not until convalescence has quite taken place, the temperature normal, and the abdominal symptoms have entirely disappeared, should the patient be considered out of danger.
Death is rarely due to the intensity

of the disease, but to complications or accidents, as pneumonitis, peritonitis, intestinal hemorrhage, or perforation of the bowel. In the majority of cases the mode of dying is by asthenia.

As long as the ataxic symptoms are not marked, and the adynamia not great, the pulse full and strong, with no serious complications, a favorable prognosis may be entertained.

This affection is always attended with characteristic anatomical lesions, affecting the peyers or agminated glands of the small intestine. These lesions consist in an apparently simple hyperplasia of the glandular elements, in virtue

of which the organs undergo rapid enlargement, and then either slowly subside, reverting to their normal condition or undergo softening, suppuration, ulceration, or gangrene. It is said that they are as characteristic of this disease, as the eruption is of small pox.

Our chief aim in the treatment of this disease must consist in the guarding against, and the prevention of the many sources of danger which attend it, and in relieving symptoms as they arise; for it is self limited, and the treatment required in ordinary cases is simple. It should be of a sustaining nature, both as regards diet and therapeutical agents.

Any untoward symptom should be

promptly met by appropriate measures.
All food must be liquid. Beef tea, milk, rice or barley with milk, should be given from the first.
In the mild form alcoholic stimulents may not be directly indicated, but may be given in the form of Sherry wine. Wine whey, milk punch being very good, but in the severer forms, with prostration, dry furred tongue quick stringy pulse, more decided stimulents must be given, and at regular intervals, in the form of brandy diluted, carbonate of ammonia, turpentine, musk &c.
In the first week or ten days of the attack the nervous symptoms are very marked, Headache, sleeplessness and delerium are the most important.

The agents to be used in these cases are, Bromide of Potassium, Hydrate of Chloral, and Opium, in some form, Dover's Powder being very good, since it allays the nervous ness, produces sleep and quiets delirium if present. It will also controll or subdue the diarrhoea that is dreaded by all. Aconite and Quinia are the most reliable agents for the reduction of temperature, the former is best given in one or two drop doses ever quarter or half hour, when the nurses are reliable. The mineral acids are very potent agents indeed and deserve great credit. The best I think is the nitro muriatic or the aromatic Sul. An excellent preperation consists of the aromat sulp acid, and Quinia combined, given ever four hours. When there

is excessive tenderness in the right iliac region, abdominal tympanitis, and a dry furred tongue. Turpentine must be given internally in from 5 to 20 drop doses, ever 4 or 6 hours, while stupes or turpentine cloths be used externally on the abdomen.

I have said nothing in regard to purgatives, for the reason that it is the subject of much discussion, some of our best men use them all through the attack, while others equally as intelegent, use them only at the commencement, and have equally, if not better results. Castor oil or calomel seems to be prefered. The last but not the least is the observance of hygiene. Free ventilation, The removal from the room of all

unnecessary articles. The free use of disinfectants, especially in regards to the stools, the water closets, the drains around the house; in fact any place where disease is liable to originate.

James Hurst. Grove.
Grafton
Taylor Co.
West Va.

Baltimore.
Md
Feby 12th 1878.

Urine.

There are in the lumbar region of the human body, two little organs of elimination, called the Kidneys.

These bodies weighing about five and a half or six ounces; during the normal life of the individual, perform the constant labor of separating from the circulatory system that fluid known as the urine.

The urine taken from the blood in the cortex of the kidneys, trickles down through the pyramids of the medullary portion, through the intermediate into the pelvis; thence it is conducted by the ureters into the bladder, the organ

intended for its reception and collection. When its accumulation excites the desire to void it. it is ejected through the urethra by the contraction of the Diaphragm, the Abdominal muscles, and the muscular fibres of the bladder itself.

In health we find the urine thus expelled, a light straw colored fluid having a specific gravity ranging from about 1015 to 1020. It has a slightly acid reaction, a peculiar odour, and saline taste.

If a clean glass vessel containing fresh healthy urine be held between the light and the eye,

a faint, scarcely perceptable cloud-
iness may be seen, this is due to
mucus floating in the liquid.
Urine should, as we have before
said, be of a straw or citron color.
This shade is due to a pigment
called Urochrome. The loss of
this substance present, this fluid
is the fluid.
Blood and pus mixed with urine
communicate their respective colors.
Certain organic and mineral
substances possess a similar
power; for Example the fruit of the (Douglas's Dictionary Page 411.
Indian fig colors the urine
as red as blood: And it is said
that Cantharides will produce

the same effect.

Besides other constituents normal urine contains Urea, Uric acid, Hippuric acid, Alkalies, phosphates and sulphates and extractive matter. Perhaps the simplest test for Urea is to place some filtered urine in a watch crystal, then evaporate it, and add a few drops of strong nitric acid; a crystalline deposit of the nitrate of Urea is speedily formed, and if this be examined under a microscope delicate six sided plates will be seen piled up, upon each other.

Chemistry affords us many simple & reliable tests by which

the ingredients of urine can be detected. The Microscope, and the Spectroscope are also very valuable in the examinations of urine.

Amongst abnormal Constituents Albumen and Sugar are the most common. When urine is suspected of containing Albumen we take a small quantity in a test tube and boil it. If turbidity takes place it will be due to either Albumen, or a deposit of the earthy phosphates. Let a little Nitric acid now be added, and should the cloud be due to the phosphates, it will quickly disappear, while albumen, will remain unaffected.

The pathological conditions in which Albumen is found in the urine have been thus grouped. 1st In Acute or Chronic Brights disease of the kidneys. II In Pregnancy and the puerperal state. III In Febrile and inflammatory diseases. IV In derangements to the circulation. V In a hydraemic and dissolved state of the blood. (Dr Roberts Practice Page)

Diabetes Mellitus is a grave disease in which sugar is found in the urine. In the saccharine urine presents no marked characteristic. The Urinometer shows a high specific Gravity; sometimes as high as 1035.

The tests for sugar are numerous.
Moore's, Trommer's, and Fehling's
are perhaps most frequently
used. For the last Prof. Flint directs
that thirty Minims of a solution
of the suspected sugar be placed
in a test tube or flask, and that to
this be added thirty minims of a
sol. of the neutral tartrate of
Potassium. Then ten fluid drachms
of Caustic soda; boil the mixture
and add the suspected urine
drop by drop. If sugar be present
a brilliant red dish or yellowish
orange precipitate will be formed.
The fermentation test is simple,
and if good yeast be added to

(Flint on Urine

quite reliable.

It has been remarked that when saccharine urine is shaken it retains its froth for a much longer time than does the normal liquid. The treatment of this serious condition is chiefly dietic, articles of food containing sugar, and that are convertible into sugar in the system, are to be as far as possible abstained from

A curious kind of urine is occasionally met with, called Chylous. This variety has an opaque appearance which makes it look as if milk had been added. It contains fat in a state of

minute divisions, in a "molecular state" as one writer calls it, or as Prof. F. T. Miles describes it, by an expressive simile "The dust of fat." This fat may be obtained by agitating the urine with ether and allowing the ethereal solution to evaporate.

Bile is sometimes found in urine and imparts to it a brown tinge. Pettenkofer's and Heller's tests are sometimes used to detect this substance. Nitric acid reacts on the Biliverdine and Bilirubine with the peculiar play of colors as well known.

Kieslein is the cheesy scum that rises to the surface of the urine of pregnant women.

Dr. Lionel S. Beale's Urinary Diseases page 2[illegible]

The mineral salts of Urine are obtained by evaporating the fluid to dryness and burning off the carbon in a chinese or platinum crucible. They are usually found to consist of Calcium, Magnesium, sodium, and sometimes Potassium & Lithium. The Spectroscope is very useful in the qualitative analysis of these substances.

Human Urine was once considered aperient. All flowers water - Urina vacca was given as a purge. On a patient with refined sensibilities it would probably have an emetic influence. At the present time no medicinal properties are attributed to this

excretion. Unless we except those rare cases where it has been used as an injection for gonorrhoea Monsieur Roquette states that he has cured two patients who happened to be roaming together, by giving Cantharides to one and directing the other to inject his friends urine.

Ischuria is a pathologic condition due to the [illegible] ceasing to perform their function. The treatment consists in combating Uraemia by diaphoresis, and the use of [illegible] cathartics, and by external [illegible] to the lumbar regions.

Enuresis, or incontinence of urine is due to paralysis of the sphincter of

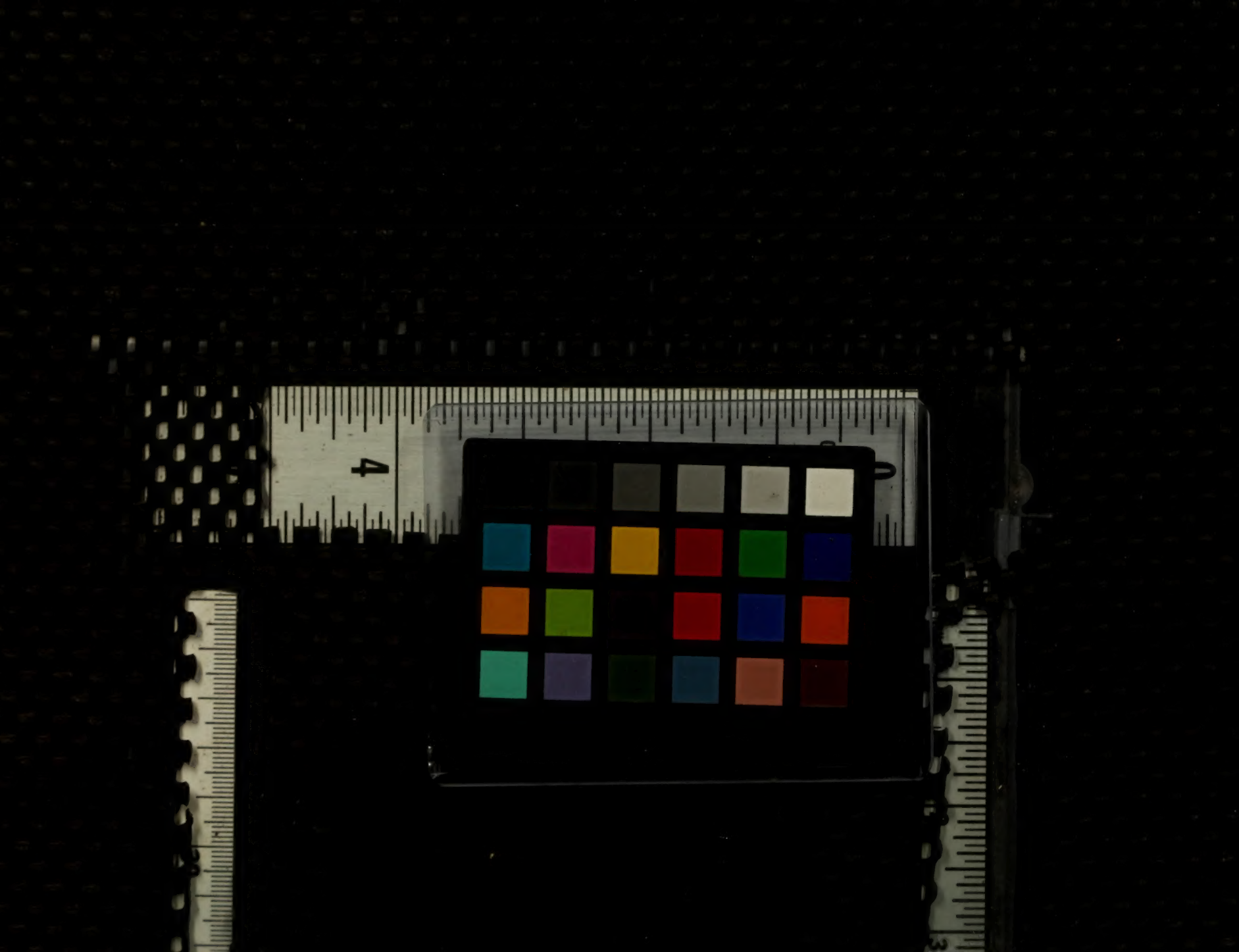
Pamphlet on Venereal Disease Roquette

the bladder. Belladonna in gr. ¼ every
is good treatment in this case.

Retention of urine is caused by
the non contraction of the bladder,
it is attended with a constant
dribbling away of water and is liable
to be mistaken for incontinence.
As the patient is unable to empty
his bladder his urine should be
drawn off three or four times
a day with a Catheter.

When we wish to increase the
amount of urine we give some
one of the many diuretics, as we
desire either to increase the watery
or solid portion of the excretion,
These diuretics, it should be

remembered, are always to be given cold, for if hot a diaphoretic action is produced.

Zenas Barnum.

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